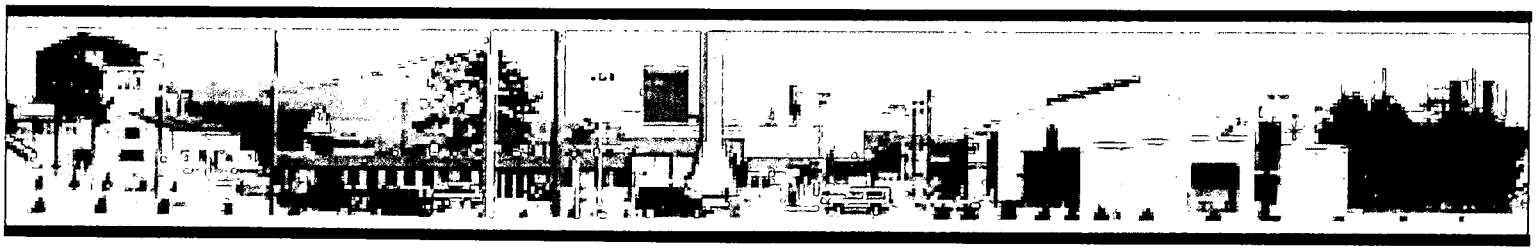
REPORT

GROUND WATER MONITORING RESULTS

February, March and April 2007

Shieldalloy Metallurgical Corporation
Newfield, New Jersey



Prepared by

TRC
Windsor, Connecticut

July 2007

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Shieldalloy Metallurgical Corporation
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Prepared by

TRC
Windsor, Connecticut
21 Griffin Road North
Windsor, CT 06095

Telephone 860-298-9692
Fax 860-298-6399

TRC Project No. 51903-LTOM-09320

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SECTION I. NARRATIVE

1.0 INTRODUCTION

This report summarizes and evaluates the ground water treatment system operational history and analytical results of ground water samples collected at the Shieldalloy Metallurgical Corporation (SMC) Newfield, New Jersey facility during sampling events from February, March and April 2007. The February and March ground water samples and water level measurements were collected on February 22, 2007 and March 22, 2007, respectively. The April ground water samples and water level measurements were collected on April 17, 18, 19 and 20, 2007. The February and March sampling rounds represent monthly sampling events and the April sampling represents an annual sampling event, according to the revised schedule of August 19, 1991. The objective of the revised sampling schedule is to focus on the toe and perimeter of the chromium plume.

The Supplemental Offsite Ground Water Investigation was conducted between November 2006 and January 2007, with the results detailed in TRC's Draft Ground Water Operable Unit 1 (OU1) Design Report dated February 2007. This investigation included the installation of thirteen vertical ground water profiling sample locations (five discrete ground water samples per location) downgradient of both the Farm Parcel and Lacroce Property. The results of the Supplemental Offsite Ground Water Investigation allow for a more detailed evaluation of the contaminant trends, particularly with regard to the TCE, total chromium and hexavalent chromium concentrations. The key results of the Supplemental Offsite Ground Water Investigation have been incorporated into the following discussion.

1.1 GROUND WATER TREATMENT SYSTEM OPERATION

The ground water extraction well operational data including monthly well log reports of pumping rates and a summary of well downtime for the months of February, March and April 2007 are included in Appendix A. A separate summary of extraction well downtime is included in Table A-1. Also included on the monthly well log reports are a summary of the daily and monthly total pumpage per extraction well and the total monthly pumpage for the entire extraction system in gallons. The extraction system pumped monthly total gallons of 9,371,880 gallons in February 2007; 10,365,180 gallons in March 2007; and 10,224,000 gallons in April 2007. A total of 29,961,060 gallons of ground water were pumped and treated during the February 2007 – April 2007 time period, which is an approximate 17.7% decrease from the previous three-month period.

Extraction well downtimes for February, March and April 2007 are summarized in Table A-1. Historically, a majority of the more significant system shutdowns (greater than 24 hours) were due to the need for various system repairs, electrical malfunctions, telecommunication problems and the need to replaced defective well pumps. During February and the early part of March 2007, there were significant (greater than 24 hours) shutdowns of each of the five extraction wells. The timing and duration of the shutdowns for each of the wells varied, with downtimes

lasting from a few days to several weeks. The significant downtimes were a result of several faulty valves limiting the influent into the electro-chemical cells. As a result, the system needed to be adjusted and recirculated often to optimize the systems pumping rate. This included taking various extraction wells offline at certain times to keep the system running as efficiently as possible. Since March 10, 2007, with the exception of extraction well W9, there has been only one significant system shutdown. This occurred on April 24-25 and lasted for a duration of approximately 37 hours. This system shutdown was necessary to perform repairs to the multi-media filters. A majority of extraction well shutdowns during the time period from March 10, 2007 through the end of April 2007 were due to regularly scheduled system maintenance and/or system recirculation and were relatively short in duration. Extraction well W9 has remained offline since early February 2007 due to the current limited capacity of the treatment facility. This also limits the capacity the treatment system can handle at any given time. Given the location of W9 (i.e., center of the plume) and the fact that back pressure in the W9 pipeline has been causing electrical problems in recent months, W9 is the most logical extraction well to temporarily take offline. In the near future, the pipelines from W9 to the treatment facility will be jetted to address the back pressure issue. In addition, once all five electric-chemical cells are operational, extraction well W9 will be brought back online and the design capacity will be restored.

As indicated in TRC's last quarterly ground water monitoring report (April 2007), the total monthly tonnage of sludge produced from the treatment plant filter press and shipped offsite will be summarized in the quarterly ground water monitoring reports. This data for the months of February 2007 through April 2007 are presented in Appendix A (Table A-2). A total of 14.27 residual tons was produced by the SMC treatment facility and received by the Gloucester County Solid Waste Complex (facility #0816A) during the period of February 2007 through January 2007.

1.2 GROUND WATER FLOW CONDITIONS

Well locations, including USGS observation well OBS-2A (NJ-WRD 15-0372), are shown on Figure 1. A summary of the annual April 2007 water level measurements, corresponding water level elevations, and well construction specifications are provided in Table 1. Water elevation contour maps for shallow and deep monitoring wells are included as Figures 2 and 3, respectively. An evaluation of the shallow well contour map indicates a general water table gradient toward the southwest across the SMC facility and the offsite Farm Parcel. A water table mound appears to be present in the far eastern end of the facility, in the vicinity of the slag pile. However, the full extent of the mound cannot be determined due to the limited monitoring well network in this area of the eastern property boundary. Shallow well contours in the vicinity of the Layne extraction well do not indicate a significant ground water capture zone from this well. This may be due, in part, to the effluent/stormwater retention basin located to the east of the extraction well. Another possible explanation is that the Layne pumping rate has been reduced somewhat over the last several years (i.e., from approximately 50 to 31 gpm). However, it should be noted that a review of historic shallow well contours from 1990 through 1998, prior to the construction of the retention basin and reduction in the pumping rate in the Layne extraction well, indicate that this area has not typically exhibited a significant ground water capture zone.

In contrast, shallow well contours in the area between shallow extraction wells RW6S and RIW2 do exhibit ground water capture represented by curved contour lines. However, the curvature of the contours lines in Figure 2 appear less pronounced in April 2007 than those consistently present during previous sampling events. This appears to be due to the fact that the majority of the water level measurements were collected on April 17, 2007 during a period when all of the extraction wells were offline for maintenance. Therefore, the water levels in the monitoring well network were not affected by the pumping of the various extraction wells at the time of water level measurement collection. The average pumping rate of RW6S decreased (approximately 32.5%) during this quarter (i.e., from 52.6 to 35.5 gpm).

An evaluation of the deep well contour map indicates a general hydraulic gradient to the southwest similar to the shallow well map. During the January 2007 sampling event the deep ground water contours in the vicinity of the on-site extraction well W9 reflected some limited piezometric surface drawdown in this area. This included a modest cone of depression, approximately 250 feet in diameter, in the vicinity of W9 which had not been observed during recent years. The appearance of the depression was likely due to the significant and sustained increase in the pumping rate of W9 after redevelopment in August 2006 (i.e., from 1 gpm or less to 17-18 gpm). However, the cone of depression was no longer present in April 2007. As previously mentioned, beginning in early in February 2007, and continuing through April 2007, extraction well W9 has been offline due to the current limited capacity of the treatment system. Consistently in the past, the ground water capture zone in the deep portion of the aquifer, in the vicinity of RW6D, has been much more pronounced than the shallow zone in this area. A fairly significant cone of depression, some 500 feet in diameter, has been present in the vicinity of RW6D. However, as mentioned previously, the majority of the water level measurements were collected on April 17, 2007 during a time period when all of the extraction wells were offline for maintenance. As a result, no cone of depression was observed in the vicinity of RW6D during April 2007. The average pumping rate of RW6D decreased (approximately 31.3%) during this quarter (i.e., from 54.4 to 37.4 gpm). Evidence of hydraulic influence on the deep wells located on the Farm Parcel, particularly wells SC2D(R) and SC5D, from the pumping of extraction well RIW2 was still observed during April 2007. This was because the extraction wells, with the exception of W9, were back online by the time water level measurements from monitoring wells located in the southwest portion of the Farm Parcel (i.e., SC1D, SC2D(R), SC3D(R), SC4D and SC24D) were collected. Thus, the monitoring well network was once again under the influence of the various extraction wells. In the future care will be taken to avoid the collection of water level measurements during periods when all of the extraction wells are offline. Although RIW2 is screened from 30 to 55 feet below ground surface (ftbgs), it apparently is pumped at a high enough rate (134 to 140 gpm) resulting in upward vertical leakage from the deeper portion of the aquifer and producing hydraulic capture of ground water beneath the bottom of the well screen. More supporting evidence to this conclusion is presented below. It should be noted that pumping rates as high as 280 gpm were recorded for extraction well RIW2 during February and early March 2007. During early February 2007, a new, higher capacity submersible pump was installed in RIW2. Although the well was pumped at a high rate, these high rates should be considered approximate as they were recorded during a time period when valve problems were causing significant treatment system capacity issues. The average pumping rate of RIW2 increased (approximately 9.9%) during this quarter (i.e., from 122.9 to 135.1 gpm).

1.3 GROUND WATER SAMPLING RESULTS/DISCUSSION

Samples for the February, March and April 2007 sampling events were collected by TRC personnel in accordance with the updated sampling and analysis plan: Ground Water Sampling and Analysis Plan – RCRA Monitoring Wells, prepared by TRC, December 2005. Samples will be collected in accordance with this plan during all future ground water monitoring events at the SMC facility.

The well samples and plant influent and effluent samples collected during the February, March and April 2007 sampling events were analyzed by Accutest Laboratories, Dayton, NJ (NJ ID#12129). Electronic data deliverables (EDDs) have been provided by Accutest for the analytical results. New Jersey Department of Environmental Protection (NJDEP) HAZSITE formatted EDDs for the February, March and April 2007 sampling events are attached to this report.

The on-site and offsite ground water analytical results for the February, March and April 2007 sampling events are provided in Tables 2, 3, 4A and 4B, respectively. It should be noted that monitoring well SC32D, installed as part of the Supplemental Offsite Investigation and first sampled in January 2007, was erroneously omitted from the April 2007 sampling event. However, this well will continued to be sampled on a quarterly basis in the future.

As requested by Paragraph 5(g) of the NJDEP's September 16, 1991 letter, the following monthly ground water results are noted from the past quarter (February 2007 through April 2007):

Well	Cr^{+6} (ppm)	CrTot (ppm)	Sampling Event
SC1S	<0.01	<0.01	2/2007
	<0.01	<0.01	3/2007
	<0.01	<0.01	4/2007
SC1D	<0.01	<0.01	2/2007
	<0.01	<0.01	3/2007
	<0.01	<0.01	4/2007
SC2D(R)	10.3	11.7	2/2007
	10.0	11.0	3/2007
	8.90	9.78	4/2007
SC3S	<0.01	<0.01	2/2007
	<0.01	<0.01	3/2007
	<0.01	<0.01	4/2007
SC3D(R)	<0.01	<0.01	2/2007
	<0.01	<0.01	3/2007
	<0.01	<0.01	4/2007

SC5D	1.50	1.62	2/2007
	1.30	1.37	3/2007
	1.20	1.25	4/2007
IW1	<0.01	<0.01	2/2007
	<0.01	0.0109	3/2007
	<0.01	<0.01	4/2007

Total chromium has been analyzed in upgradient monitoring well SC25S as directed by the NJDEP's letter dated September 14, 1992. The total chromium results from this well during the last quarter (February 2007 through April 2007) are as follows:

Date	Total Chromium (ppm)
2/2007	<0.01
3/2007	<0.01
4/2007	<0.01

The total chromium results from well SC25S during the past three sampling events (February 2007 through April 2007), as indicated in Tables 2, 3 and 4A, are consistent with the historical results for this well (ranging from less than 0.01 to 0.05 ppm) which are below the total chromium ground water action level specified in the September 1996 Record of Decision (ROD) of 0.1 ppm. Since this well is located hydraulically upgradient of the SMC site, the low levels of total chromium in this well appear to be representative of background conditions. As a result, SMC formally requests that this well be sampled on a quarterly basis rather than on a monthly basis.

Total and hexavalent chromium results from downgradient well SC24D during the past three sampling events have been consistently <0.010 ppm which is comparable to previous results (Tables 2, 3 and 4B).

The deep monitoring well (SC30D) located south of the SMC facility, within the City of Vineland's right-of-way on East Arbor Avenue, was installed as part of SMC's 2002 Offsite Investigation. Well SC30D, which has been sampled quarterly since July 2002, has not historically exhibited levels of VOCs, with the exception of tetrachloroethylene (PCE), or total chromium above ground water action levels. During July 2002, a low concentration (0.6 parts per billion) of PCE, a solvent not historically used by SMC, was detected in this well. The New Jersey Ground Water Quality Standard (GWQS) for PCE is 0.4 ppb. For the next 2 years (October 2002 through October 2004), PCE was sporadically present in SC30D (i.e., October 2002 and October 2003) at levels slightly above the GWQS. However, since January 2005, the detected concentration of PCE in monitoring well SC30D has consistently been slightly above its associated GWQS, with concentrations ranging from 0.47 to 1.3 ppb. As indicated on Table 4B, the April 2007 results exhibited PCE at a concentration of 0.50 ppb. It should be emphasized that PCE was not used in the manufacturing activities at SMC and due to other known industrial facilities (e.g., car wash, Andrews Glass site, Wheaton Glass site, etc.) that have been or are currently being investigated by the NJDEP for chlorinated VOC contamination, the potential exists for other source area(s) to be contributing to the PCE and TCE contamination.

Specifically, the potential exists for source area(s) to be located upgradient of the Farm Parcel but downgradient of the SMC manufacturing parcel. Furthermore, hexavalent chromium (Cr^{+6}) has not been detected above the laboratory detection limit in SC30D during any sampling event. Total chromium has only been sporadically detected above the laboratory reporting limit at levels less than 10 ppb. No detectable concentrations of total or hexavalent chromium were present in monitoring well SC30D during April 2007.

Monitoring well SC31D, also installed as part of the 2002 Offsite Investigation, is located in the northwest corner of the Farm Parcel. Well SC31D has been sampled quarterly since July 2002 and has exhibited trichloroethene (TCE) at levels ranging from 2.6 to 19.7 ppb. The detected level of TCE in April 2007 was 11.6 ppb (Table 4B). It also should be noted that in April 2005, PCE was detected for the first time in well SC31D at a concentration of 1.6 ppb. Since the April 2005 sampling event, PCE has been consistently detected above the associated GWQS of 0.4 ppb at concentrations ranging from 1.4 to 2.6 ppb. The detected level of PCE in SC31D during April 2007 was 0.47 ppb. Total chromium and Cr^{+6} have not been detected above the laboratory detection limit in this well during any sampling event, including April 2007.

Deep monitoring well SC32D, located approximately 3,200 feet south of the Farm Parcel on West Forest Grove Road, was installed as a "sentinel" well as part of the Supplemental Offsite Ground Water Investigation in December 2006. The details of that investigation are presented in TRC's Draft Ground Water Operable Unit 1 (OU1) Design Report dated February 2007. The newly installed monitoring well was sampled for the first time in January 2007. No detectable levels of VOCs, total chromium or Cr^{+6} were detected in SC32D during January 2007 (Table 4B). Although not sampled during the April 2007 event, this monitoring well will continue to be sampled on a quarterly basis until further notice.

A summary of the TCE, total chromium and Cr^{+6} results during the past three sampling events (February 2007 through April 2007), for each of the on-site and offsite wells, are provided in Tables 5A and 5B, respectively.

This report encompasses the results of two monthly and one annual sampling event. Attached to this report are isopleth maps of the TCE, total chromium and Cr^{+6} ground water plumes from the annual April 2007 sampling event. Figures 4 and 5 represent the TCE isopleth maps for the shallow and deep wells, respectively. PCE concentrations are also illustrated on these figures. Total chromium isopleth maps for the shallow and deep wells are presented on Figures 6 and 7, respectively. The shallow and deep Cr^{+6} plumes are depicted on Figures 8 and 9, respectively. Furthermore, line graphs and histograms representing historical contaminant trends in select shallow and deep monitoring and extraction wells have been provided in Figures 10 through 20. In addition, the key results of the two Offsite Ground Water Investigations (2002 and 2006) have been incorporated into the following discussion.

Comparison of the April 2007 isopleth maps to previous years (April) isopleth maps and an evaluation of TCE and total chromium concentration trends during the past several years have provided the following observations for the shallow and deep ground water plumes.

- The overall footprint of the shallow on-site TCE plume (i.e., 1 ppb contour line) has remained virtually unchanged over the last 6 years, indicating that the shallow plume has been contained by the ground water extraction system and has not spread downgradient of the SMC Manufacturing Parcel (Figure 4). The upward TCE concentration trend in monitoring well K reversed in July 2003 as a result of a sharp drop in the TCE concentration from 46 to 8 ppb. Since July 2003, the concentration of TCE in monitoring well K has exhibited a general downward trend with concentrations decreasing from 8 to 1.9 ppb (April 2007). Within the leading edge of the shallow TCE plume, located on the Farm Parcel, monitoring well SC1S had exhibited sporadically low or non-detect levels of TCE from April 2001 to October 2004. Between January 2005 and July 2006, low levels (1 to 4 ppb) of TCE were consistently detected in SC1S. Since January 2005 (2.1 ppb), the concentration of TCE in SC1S has shown a decreasing trend, with a detected concentration of 0.44 ppb in April 2007. The low levels of TCE detected in SC1S since October 2001 mirror the levels exhibited in SC3S (with a two-year lag period), located approximately 350 feet upgradient of SC1S. Although it appears that the Farm Parcel's shallow TCE plume has migrated beyond the capture zone of RIW2, ground water modeling presented in TRC's Draft Ground Water OU1 Design Report indicates that the shallow TCE particle pathlines terminate further downgradient into the Hudson Branch. The results of the Supplemental Offsite Ground Water Investigation seem to support that the shallow TCE is being contained within the Manufacturing Parcel or discharging into the Hudson Branch on the Farm Parcel. None of the vertical ground water profiling sample locations installed as part of the offsite investigation, including those nearest to the Farm Parcel, exhibited elevated concentrations of TCE (i.e., greater than 1 ppb) in the shallow portion of the aquifer (i.e., less than approximately 35 ftbgs). Figure 10 illustrates the TCE concentrations in shallow wells K, SC1S and SC3S.

- On-site deep well A has exhibited fluctuating levels of TCE since April 2001, with spiked levels during July 2002 and January 2005. However, monitoring well A exhibited an overall downward TCE concentration trend from 34 ppb (April 2001) to a non-detect level (April, July and October 2006). Since October 2006 the detected level of TCE has shown a slight increase to 3.0 ppb in April 2007. TCE concentrations of deep wells on the Farm Parcel have exhibited a fairly substantial decrease over the last 12 years. For example, as illustrated on Figure 11, monitoring wells SC5D and SC24D have exhibited a consistent decrease in TCE levels from 359 ppb and 150 ppb, respectively, in April 1995 to 4.8 ppb and 5.6 ppb, respectively, in April 2007. Similarly, as shown on Figure 12, between April 2001 and October 2004, the concentration of TCE in deep well SC2D(R) exhibited a general downward trend. Since January 2005, the level of TCE in SC2D(R) has remained consistent, ranging between 3.2 and 4.6 ppb. The addition of well SC31D in the northwest corner of the Farm Parcel has provided better delineation of the deep TCE plume in this area of the parcel. From the initial sampling of SC31D in July 2002 through January 2005, the TCE concentration trend also generally decreased. Since January 2005, the TCE concentration has

fluctuated from 2.6 ppb in January 2005 to 19.7 in October 2005. During the most recent sampling event (April 2007), TCE was detected at a concentration of 11.6 ppb. It should be noted that in recent years, PCE has been detected in association with each of these wells (i.e., SC5D, SC24D, SC2D(R) and SC31D). TCE is a first order breakdown byproduct of PCE. Due to the fact that PCE was not historically used in the manufacturing processes at the SMC facility and the close proximity of these wells to other known industrial facilities (e.g., car wash, Andrews Glass site, Wheaton Glass site, etc.) that have or are currently being investigated by the NJDEP for chlorinated VOC contamination, the potential exists for the downgradient PCE and TCE contamination to be originating from source area(s) upgradient of the Farm Parcel but downgradient of the SMC facility. *For example, the New Jersey Department of Environmental Protection has filed a civil action against the current and past property owners of the "Andrews Glass" site for natural resources damages to ground water and for other monetary restitution including ground water remediation. This site is located at 3740 Northwest Boulevard, Vineland, New Jersey immediately west (downgradient) of the SMC Manufacturing parcel and north-northeast (upgradient) of the RW6S and RW6D ground water extraction well pair. The civil action was filed in December 2004 for the illegal discharge of various chlorinated VOCs (i.e.; PCE, TCE and 1,2-Dichloroethene (1,2-DCE)) which have been identified in the on-site soil and on-site and offsite ground water.* The only deep monitoring well on the Farm Parcel that has not exhibited a downward trend in TCE is SC1D, which has generally shown fluctuating TCE concentrations between 5 and 12 ppb. A graph representing the historic TCE trends of these deep wells is provided as Figure 12. In addition, the results of the Supplemental Offsite Ground Water Investigation indicated the presence of TCE in the deep portion of the aquifer as far as one mile downgradient of the Farm Parcel without full definition, to date, of the leading edge of the deep TCE plume. However, several of the offsite ground water investigation sample locations, including those adjacent to and significantly downgradient of the Farm Parcel, exhibited PCE, both in association with and independent of levels of TCE. Once again, this is a strong indication that other potential source area(s) not associated with SMC are contributing to the VOC contaminant plume.

- Based on quarterly ground water monitoring results, the overall footprint of the shallow total chromium plume (i.e., 100 ppb contour line) has remained virtually unchanged over the last 6 years (Figure 6). Similarly, concentrations of total chromium within the center of the shallow plume, with the exception of IWC2, have remained fairly constant over the same time period. From April 2001 through April 2007, the concentration of total chromium in shallow monitoring well SC12S has generally exhibited a downward trend. Although upward trends and spikes (e.g., January 2002 and April 2004) have occurred, overall the concentration of total chromium in SC12S has decreased from 1,200 (April 2001) to 53.4 ppb (April 2007). Monitoring well IWC2 exhibited a downward trend from April 2001 through July 2003, prior to spiking to 1,790 ppb by January

2004. Since January 2004 the concentration has fluctuated, but remained somewhat elevated, ranging from 1,140 (July 2005) to 1,680 ppb (April 2006). The detected concentration of total chromium in April 2007 was 1,160 ppb. It is possible that the spike in total chromium detected in SC12S during the late 2001 to early 2002 time period has migrated the approximately 875 feet downgradient to the IWC2 well location. Since April 2001, well L has exhibited cyclic upward and downward trends in the total chromium levels. Generally, the highest total chromium concentrations in well L are detected during January and the lowest concentrations are found during July. However, in April 2007 the highest total chromium concentration in 6 years was detected in well L (2,330 ppb). At this time, it is uncertain why this has occurred, but TRC will continue to closely monitor this well during future sampling events. Downgradient well SC3S has consistently exhibited total chromium concentrations below laboratory detection limits, including the February, March and April 2007 sampling events. Figure 13 represents the trends of total chromium levels for these shallow wells. The results of the 2002 and 2006 Offsite Ground Water Investigations indicate that the horizontal extent of the shallow total chromium plume is more irregularly shaped than previously thought. Portions of the plume were found to be extending both south-southeast of the Farm Parcel, in the vicinity of West Arbor Avenue, and south of the Lacroce Property to approximately Strawberry Avenue. The irregular shape of the plume is likely related to significant ground water diversions (e.g., irrigation wells, municipal wells, etc.) influencing the plume. However, the Cr^{+6} plume seems to be restricted to an area extending from the SMC facility to the Farm Parcel. Total chromium being removed from the shallow aquifer by the shallow extraction wells (i.e., RIW2, RW6S and Layne) has exhibited modestly changing trends since April 2001. Specifically, total chromium levels have, in spite of minor increasing and decreasing trends, consistently ranged from 1,340 to 1,800 ppb in RIW2 with a slight upward trend since October 2005. Layne has exhibited total chromium concentrations ranging from 947 to 1,800 ppb with a slight upward trend since January 2005. Well RW6S has exhibited total chromium generally ranging from 293 to 697 ppb with slightly varying upward and downward trends since April 2001. It should be noted that the spikes in total chromium observed in both the Layne and RW6S extraction wells during the January 2006 sampling event may have resulted from these wells being shutdown at the time of sampling. It is possible that the chemistry of the residual water in the sample tap piping may have been affected, resulting in the anomalously high total chromium concentrations. Figure 14 provides the 6-year historic trends of total chromium in these shallow extraction wells.

- The overall footprint of the on-site deep total chromium plume (i.e., 100 ppb contour line), as well as concentrations within the center of the plume, have reduced significantly over the last 2 years. This change is due, in large part, to discontinuing the sampling of monitoring well SC22D as part of the updated Ground Water Sampling and Analysis Plan – RCRA Monitoring Wells prepared by TRC in January 2006. Monitoring well SC22D was damaged during insitu

pilot testing in 2001, and to account for the loss of SC22D, the sampling of monitoring well MWH-4 was initiated. As a result, monitoring well MWH-4, located approximately 40 feet downgradient of SC22D and screened at a similar depth interval (119 to 129 feet), is now sampled on a quarterly basis. The total chromium concentrations detected from well MWH-4, historically and since quarterly sampling was initiated in January 2006, indicate significantly lower concentrations than the levels detected in SC22D. The total chromium concentration in MWH-4 during April 2007 was 2,660 ppb. In addition, Cr^{+6} concentrations from monitoring well MWH-4 have been in line with historic levels, particularly in terms of the total chromium to Cr^{+6} ratio (i.e., approximately 1:1). Concentrations of total chromium from other wells located within the center of the deep plume beneath the southwest corner of the SMC facility (i.e., wells A and IWC5) have remained consistent with historic trends. Specifically, well A has shown somewhat varied results, with moderate upward and downward total chromium trends from April 2001 through April 2007. Well IWC5 has remained fairly constant since April 2001, with the exception of July 2003 when the concentration decreased sharply, with total chromium levels ranging from 222 to 345 ppb (Figure 15). Although, total chromium concentrations within the A and IWC5 monitoring wells have been in line with historical results, the fact that concentrations in MWH-4 are significantly lower than the concentrations detected in SC22D, has caused both the footprint and the center of the deep total chromium plume to be altered significantly as depicted in Figure 7.

- The southwest lobe (Farm Parcel) of the deep total chromium plume has exhibited fairly significant changes over the last several years. For example, well IW2 on the Farm Parcel has exhibited a substantial reduction in the level of total chromium over the last 13 years (from 22,750 ppb in April 1994 to 3,750 ppb in April 2007), as indicated in Figure 16. However, in contrast, well SC2D(R) has exhibited a fairly substantial increase in total chromium concentrations since April 2001 (from less than 100 ppb to 11,400 ppb in April 2002). Between April 2002 and September 2006 the concentration has generally fluctuated between moderate upward and downward trends, with an upward trend prior to spiking in October 2006, as indicated in Figure 17. The October 2006 concentration (27,500 ppb) represents an approximately 2.7 fold increase from the previous monthly sampling event. This significant increase may be related to the migration of the total chromium plume approximately 310 feet from the upgradient SC4D well, screened from 110 to 120 feet, to the downgradient SC2D(R) location. Elevated total chromium levels (i.e., as high as 37,000 ppb) were detected in SC4D between 1994 and 1999, before returning to pre-1994 levels (i.e., generally ranging between 10,000 and 13,000 ppb). It is possible that the slug of elevated total chromium levels that migrated through SC4D during the mid to late 1990's reached the SC2D(R) location in October 2006. However, in the 6 months following October 2006 (November 2006 through April 2007) the total chromium sampling results from monitoring well SC2D(R) indicate a return to levels

comparable to those observed in the six months prior to the October 2006 spike. This could indicate that either the slug has not yet reached the SC2D(R) location or that, due to varying seasonal ground water flow directions, only a portion of the slug had reached the SC2D(R) location in October 2006. The general increase in total chromium concentrations observed in SC5D (located side gradient to SC2D(R) and detailed below) during the last 8 months to 1,250 ppb in April 2007 provide further evidence for at least a portion of the total chromium plume reaching the SC2D(R) location. Historic results indicate that total and hexavalent chromium have not been detected in SC3D(R) or any other monitoring wells downgradient of extraction well RIW2 (i.e., SC1D, SC24D and SC31D). This trend continued in April 2007.

- During the period from April 2002 through April 2003, the concentrations of total chromium in deep monitoring well SC5D exhibited a fairly substantial decrease (from 3,300 to 301 ppb). From April 2003 through July 2005, the concentration of total chromium in SC5D remained relatively constant ranging from 249 to 418 ppb. Between July 2005 and August 2006, the total chromium concentration in SC5D fluctuated, exhibiting relatively short duration increasing and decreasing trends. Since August 2006, the concentration of total chromium in SC5D has shown a moderate increasing trend. This provides further evidence of the movement of the higher concentration core of the deep total chromium plume to the SC5D and SC2D(R) area. In addition, as indicated in Figure 18, between approximately March 1996 and October 2002 the levels of total chromium in this well exhibited significant variation between sampling events (ranging between greater than 3,000 to less than 100 ppb). It is difficult to determine the cause(s) of these large fluctuations but it is possible that since SC5D is located toward the "flank" of the southwest lobe of the plume, slight variations in seasonal ground water flow directions could have been responsible for these large fluctuations in total chromium concentrations.

- Well SC28D, located south of the SMC facility, had exhibited a downward trend in total chromium levels from April 2001 through October 2001 (310 ppb to 114 ppb), but again increased to a level of 399 ppb in January 2002. Between January 2002 and July 2005, the concentration of total chromium in SC28D generally decreased, reaching a low of 96.1 ppb in July 2005. Since July 2005, the concentration of total chromium has shown a general increase with a detected concentration of 165 ppb in April 2007 (Figure 19).

- Previous pumping tests were performed on extraction well RIW2 by DRAI in 1989 (presented in their April 1990 report) and by TRC in 1997. The results of both tests indicate that by pumping RIW2, a direct hydraulic influence was observed in deep monitoring wells SC1D, SC2D, SC3D and/or SC5D suggesting an upward vertical leakage present in the deep aquifer. This data in combination with the fate and transport analysis provided in the same DRAI report, which estimated a chromium plume migration velocity of 110 feet per year, suggests that

extraction well RIW2 appears to be effective in capturing the deep chromium plume.

- Although it appears that the pumping of extraction well RIW2 has been effective in capturing the deep Cr^{+6} plume in the vicinity of the Farm Parcel, the Supplemental Offsite Ground Water Investigation has provided an expanded understanding of both the horizontal and vertical extent of the total chromium plume. Based on the results of this investigation, the horizontal extent of the total chromium plume was found to be of an irregular shape. The irregular shape is likely related to significant ground water diversions (e.g., irrigation wells, municipal wells, etc.) influencing the plume. Similar to the shallow total chromium plume, it appears that a lobe of the plume extends south across the Lacroce Property (i.e., in the vicinity of Strawberry Avenue), as well as a relatively short distance south-southeast of the Farm Parcel (i.e., in the vicinity of West Arbor Avenue). Furthermore, it appears that the total chromium plume extends vertically to the aquifer confining layer (i.e., clay layer) approximately 135 to 145 ftbgs. None of the vertical ground water profiling locations exhibited elevated total chromium concentrations in the deep portion of the aquifer downgradient (i.e., southwest) of the Farm Parcel and extraction well RIW2. In addition, none of the offsite vertical ground water profiling locations exhibited elevated levels of Cr^{+6}, indicating that the Cr^{+6} plume is also being contained by the extraction well system. Furthermore, geochemical data suggests that the natural aquifer conditions would tend to reduce Cr^{+6} to the less soluble and mobile trivalent chromium (Cr^{+3}). This is supported by the fact that no Cr^{+6} was detected at any of the vertical profiling locations during the 2002 and 2006 offsite ground water investigations. Therefore, it is possible that the total chromium detected at the offsite locations is an artifact of the drilling technique (i.e., hollow-stem screened auger) rather than representative of dissolved ground water quality.

- Total chromium being removed from the deep aquifer by the deep extraction wells (i.e., W9 and RW6D) has fluctuated in well RW6D (levels fluctuating between 1,620 and 6,600 ppb) and in W9 (levels fluctuating between 1,450 to 29,500 ppb) over the course of the past 6 years (April 2001 through April 2007). Both wells exhibited a spike in the levels of total chromium during October 2002. Since the October 2002 spike, the level of total chromium detected in RW6D has remained fairly constant, ranging from 1,620 to 4,530 ppb. However, total chromium in extraction well W9 had exhibited a downward trend from April 2004 through July 2006 (7,900 to 1,510 ppb), prior to spiking in October 2006 (6,880 ppb). The concentration of total chromium in W9 since the October 2006 sampling event has decreased to a pre-October 2006 concentration of 1,760 ppb in April 2007. This fluctuation may be due, in part, to a period of inconsistent pumping in W9 (i.e., reduced pumping rate, followed by an increase and subsequent reduction) between January 2006 and April 2007. In August 2006, W9 was redeveloped to reduce corrosive build-up within the well screen, submersible pump and discharge piping that had been limiting flow. Following

the redevelopment process, the extraction wells, especially W9, pumped more efficiently. Therefore, it appears that the increase in total chromium in W9 corresponds to the increased rate at which the well is being pumped. However, since early February 2007, extraction well W9 has only been online sporadically due to the current limited capacity of the treatment plant. This has likely resulted in the decrease in total chromium observed during the April 2007 sampling event. Total chromium levels from April 2001 through April 2007 for the deep extraction wells are presented in Figure 20.

TABLE 1
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
GROUND WATER ELEVATIONS / WELL CONSTRUCTION SPECIFICATIONS
APRIL 2007

WELL #	PERMIT #	INSTALLATION DATE	CASING TYPE / DIAMETER	GROUND ELEVATION (msl) [2]	TOP OF INNER CASING ELEVATION (msl) [2]	TOTAL WELL DEPTH (ft) [3]	SCREENED INTERVAL (ft) [3]	SCREENED INTERVAL ELEVATION (msl) [1] [2]	DEPTH TO WATER (ft)	GROUND WATER ELEVATION (msl) [2]
A	51-142	1970	STEEL/2"	-	94.82	124	114 to 124	-21.18 to -31.18	2.89	91.93
IWC3	51-222	1/74	STEEL/2"	-	97.83	60	55 to 60	40.83 to 35.83	4.51	93.32
IWC4	51-223	1/74	STEEL/2"	-	98.61	80	75 to 80	21.61 to 16.61	5.25	93.36
IWC5	51-224	1/74	STEEL/2"	-	98.03	100	95 to 100	1.03 to -3.97	4.71	93.32
W3D	31-25759	12/5/86	PVC/4"	-	108.37	108	88 to 108	18.37 to -1.63	12.52	95.85
W-4	51-219	5/8/74	PVC/4"	-	104.58	75	55 to 75	47.58 to 27.58	11.89	92.69
MWH-4	UNK	2/7/2002	PVC/6"	97.54	99.44	129	119 to 129	-21.46 to -31.46	6.40	93.04
SC-12D	31-35226-0	11/28/90	PVC/4"	102.16	103.19	140	126 to 136	-23.84 to -33.84	8.25	94.94
SC-13D	31-35227-8	11/29/90	PVC/4"	99.67	101.99	140.5	127 to 137	-27.33 to -37.33	7.43	94.56
SC-20D	31-38187	1/10/92	PVC/4"	101.55	104.53	139	129 to 139	-27.45 to -37.45	10.65	93.88
SC-22D	31-35222-7	11/21/90	PVC/4"	96.18	98.72	125	111 to 121	-14.82 to -24.82	5.45	93.27
SC-1D	31-21619-6	5/30/84	PVC/2"	88.00	90.90	115	85-95/100-115	3 to -7 / -12 to -27	5.30	85.60
SC-2D(r)	31-38194	1/3/92	PVC/4"	90.62	92.70	-	106 to 116	-15.38 to -25.38	5.40	87.30
SC-3D(r)	31-38195	1/7/92	PVC/4"	88.75	91.06	-	102 to 112	-13.25 to -23.25	4.49	86.57
SC-4D	31-21690-1	6/8/84	PVC/2"	-	92.64	120	110 to 120	-19.36 to -29.36	5.72	86.92
SC-5D	31-21876-8	6/12/84	PVC/2"	-	97.00	120	90 to 120	5.00 to -25.00	9.96	87.04
SC-6D	31-21878-4	6/26/84	PVC/2"	-	94.38	125	110 to 120	-17.62 to -27.62	4.22	90.16
SC-10D	31-23370	11/12/85	PVC/4"	-	95.72	125	105 to 125	-11.28 to -31.28	5.22	90.50
SC-17D	31-35223-5	11/27/90	PVC/4"	106.48	108.07	153	143 to 153	-36.52 to -46.52	17.28	90.79
SC-18D	31-35228-6	11/20/90	PVC/4"	93.56	96.01	130	119 to 129	-25.44 to -35.44	7.23	88.78
SC-19D	31-35221-9	11/26/90	PVC/4"	89.65	92.03	133	120 to 130	-30.35 to -40.35	3.27	88.76
SC-21D	31-35220-1	11/27/90	PVC/4"	90.44	91.65	140	125 to 135	-34.56 to -44.56	3.65	88.00
SC-24D	3142083	8/24/93	PVC/4"	-	93.52	115	105 to 115	-13.48 to -23.48	7.48	86.04
SC-26D	31-39500	7/9/1992	PVC/4"	100.68	100.45	143	127 to 137	-26.32 to -36.32	7.80	92.65
IW-2	-	11/12/85	PVC/6"	-	91.05	70	40 to 70	49.05 to 19.05	5.26	85.79
SC-28D	31-47408	8/16/95	PVC/4"	107.41	106.87	153	133 to 153	-25.59 to -45.59	16.60	90.27
SC-29D	31-47409	2/20/97	PVC/4"	106.50	106.23	148	128 to 148	-21.50 to -41.50	NM	NM
SC-30D	31-63686	6/14/02	PVC/2"	114.59	115.58	157	147 to 157	-32.41 to -42.41	25.64	89.94
SC-31D	31-66758	6/25/02	PVC/2"	99.78	102.61	130	120 to 130	-20.22 to -30.22	16.14	86.47
SC-32D *	35-27314	12/18/06	PVC/2"	-	90.00	102	92 to 102	-2.00 to -12.00	NM	NM
OBS-2A**	31-06092	-	-	-	122.80	154	129 to 149	-8.20 to -28.20	NM	NM
B	51-143	1970	STEEL/2"	-	94.33	46	36 to 46	56.33 to 46.33	2.32	92.01
K	51-152	1971	STEEL/2"	-	99.18	46	36 to 46	61.18 to 51.18	6.92	92.26
L	51-153	1971	STEEL/2"	-	103.51	52	42 to 52	59.51 to 49.51	8.71	94.80
IWC1	51-220	1/74	STEEL/2"	-	98.13	20	15 to 20	81.13 to 76.13	4.82	93.31
IWC2	51-221	1/74	STEEL/2"	-	98.51	40	35 to 40	61.51 to 56.51	5.20	93.31
W2(r)	31-38189	12/20/91	PVC/4"	95.88	97.96	17	2 to 17	93.88 to 78.88	2.58	95.38
SC-9S	31-23368-6	8/1/85	PVC/4"	-	96.23	30	15 to 30	79.23 to 64.23	4.25	91.98
SC-11S(r)	31-39512	7/1/92	PVC/4"	106.91	108.12	24	9 to 24	97.91 to 82.91	11.75	96.37
SC-12S	31-29140-6	9/2/88	PVC/2"	-	104.76	25	15 to 25	87.76 to 77.76	9.05	95.71
SC-13S	31-29570-3	9/9/88	PVC/2"	-	101.41	24.7	14.7 to 24.7	84.71 to 74.71	4.77	96.64
SC-14S	31-35215-4	11/15/90	PVC/4"	105.83	108.38	27	12 to 27	93.83 to 78.83	11.00	97.38
SC-15S	31-35216-2	11/13/90	PVC/4"	106.06	108.32	27.5	12.5 to 27.5	93.56 to 78.56	11.66	96.66
SC-16S	31-35217-5	11/14/90	PVC/4"	105.32	108.05	27	12 to 27	93.32 to 78.32	15.03	93.02
SC-20S	31-35218-3	11/13/90	PVC/4"	101.74	104.45	22	7 to 22	94.74 to 79.74	10.50	93.95
SC-22S	31-35219-7	11/14/90	PVC/4"	96.17	99.65	18	3 to 18	93.17 to 78.17	5.95	93.70
SC-23S	31-35437-8	11/16/90	PVC/4"	102.83	102.21	24	9 to 24	93.83 to 78.83	8.45	93.76
SC-25S	31-38188	12/23/91	PVC/4"	-	102.27	21	6 to 21	94.27 to 79.27	5.45	96.82
SC-27S	31-41031	12/15/92	PVC/4"	-	100.54	22	7 to 22	91.54 to 76.54	6.29	94.25
SC-1S	31-28825-1	6/22/88	PVC/4"	-	87.26	55	35 to 55	50.26 to 30.26	1.02	86.24
SC-3S	31-28914-2	6/8/88	PVC/4"	-	90.32	55	35 to 55	53.32 to 33.32	3.92	86.40
SC-4S	31-21689-7	6/7/84	PVC/2"	-	93.65	45	35 to 45	56.65 to 46.65	4.92	88.73
SC-5S	31-35434-1	11/28/90	PVC/4"	94.18	96.55	20	5 to 20	89.18 to 74.18	9.38	87.17
SC-6S	31-21691-5	6/21/84	PVC/2"	-	94.62	75	45 to 75	47.62 to 17.62	3.80	90.82
SC-10S	31-23369	11/11/85	PVC/4"	-	95.38	55	35 to 55	58.38 to 38.38	5.04	90.34
SC-17S	31-35229-4	11/19/90	PVC/4"	106.53	109.26	28	13 to 28	93.53 to 78.53	16.36	92.90
SC-18S	31-35230-8	11/15/90	PVC/4"	93.43	95.72	19	4 to 19	89.43 to 74.43	6.52	89.20
SC-19S	31-35224-3	11/15/90	PVC/4"	90.14	92.98	17	2 to 17	88.14 to 73.14	5.00	87.98
SC-21S	31-35225-1	11/15/90	PVC/4"	90.57	92.64	18	3 to 18	87.57 to 72.57	4.51	88.13
SC-24S	31-35435-1	11/28/90	PVC/4"	91.57	93.57	20	5 to 20	86.57 to 71.57	6.60	86.97
IW-1	-	4/5/83	PVC/6"	89.06	90.33	62	32 to 62	57.06 to 27.06	3.28	87.05

Note:

(1) - Screened interval elevations for well locations without surveyed ground elevations calculated assuming a ground elevation of 2 feet below the surveyed well elevation (i.e., top of inner casing elevation).

(2) - All elevations based on vertical datum NGVD 1929

(3) - Feet Below Grade

* - Monitoring well not surveyed, casing elevation is approximate.

** - USGS observation well (NJ-WRD Well Number 15-0372) land surface is 120 feet above NGVD 1929, with the measuring point 2.80 ft above the land surface. The total well depth is 154 feet, with a screened interval of 129-149 feet below grade. (USGS Water Resources Data, New Jersey Water Year 2002 Vol. 2: Water Data Report NJ-02-2)

msl - Feet Above Mean Sea Level

ft - Feet

NM - Not Measured

UKN - Unkown

TABLE 2
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
GROUND WATER ANALYTICAL RESULTS
ON-SITE & OFFSITE WELLS
February 2007

WELL NUMBER SCREENED INTERVAL PARAMETER	SC1S 35-55	SC1D 85-95/ 100-115	SC2D(R) 106-116	SC3S 35-55	SC3D(R) 102-112	SC5S 5-20	SC5D 90-120	SC10S 35-55	SC10D 105-125	SC24S 5-20	SC24D 105-115	SC25S 7-22	SC26D 127-137	IW1 32-62	RW6S 55-75	RW6D 90-125	RIW2 30-55	W9 110-130	LAYNE 42-47
TOTAL METALS (ug/L)																			
Chromium	U	U	11700	U	U	U	1620	U	2300	U	U	U	72.2	U	1520	3090	1680	1960	NA
Hexavalent Chromium	U	U	10300	U	U	U	1500	U	2400	U	U	U	51	U	1400	2900	1600	1800	NA
Sodium	69400	57200	58600	89700	51400	6260	40300	84200	353000	10600	30200	34600	44600	44900	68600	154000	70400	87800	NA
OTHER PARAMETERS (mg/L) [1]																			
pH (Field)	7.42	7.01	6.97	7.05	6.30	6.26	6.60	7.72	7.76	5.45	5.39	7.35	7.07	6.32	8.06	7.62	7.14	7.78	NA
Sulfate	108	72.1	43.6	150	67.7	18.3	50.7	85.1	196	115	70.3	U	29.4	78.4	117	140	114	121	NA

Total metals performed via Method 3010A/6010B; Hexavalent Chromium via Method 7196; Sulfate Method 300.0.
(1) - All concentrations in mg/L except pH in Standard Units.
U - Indicates compound analyzed for but not detected (organics and inorganics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Extraction well LAYNE not sampled during February 2007 due to well being off at time of sampling.

TABLE 3
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
GROUND WATER ANALYTICAL RESULTS
ON-SITE & OFFSITE WELLS
March 2007

WELL NUMBER SCREENED INTERVAL PARAMETER	SC1S 35-55	SC1D 85-95/ 100-115	SC2D(R) 106-116	SC3S 35-55	SC3D(R) 102-112	SC5S 5-20	SC5D 90-120	SC10S 35-55	SC10D 105-125	SC24S 5-20	SC24D 105-115	SC25S 7-22	SC26D 127-137	IW1 32-62	RW6S 55-75	RW6D 90-125	RIW2 30-55	W9 110-130	LAYNE 42-47
TOTAL METALS (ug/L)																			
Chromium	U	U	11000	U	U	U	1370	U	5980	U	U	U	114	10.9	733	2910	1530	7010	2260
Hexavalent Chromium	U	U	10000	U	U	U	1300	U	5700	U	U	U	110	U	490	2900	1500	4100	1100
Sodium	66400	60000	56700	99100	48900	6880	38500	83500	344000	8730	32800	31400	70100	32000	152000	153000	71600	131000	123000
OTHER PARAMETERS (mg/L) [1]																			
pH (Field)	8.52	8.87	7.5	8.16	7.36	7.65	7.59	8.00	7.70	7.02	7.01	8.25	9.19	7.36	7.40	7.63	7.92	8.07	8.05
Sulfate	97.3	63.3	36.8	159	53.3	U	48	80.3	259	98.2	55.6	19.6	42	56	109	143	110	120	104

Total metals performed via Method 3010A/6010B; Hexavalent Chromium via Method 7196; Sulfate Method 300.0.
(1) - All concentrations in mg/L except pH in Standard Units.
U - Indicates compound analyzed for but not detected (organics and inorganics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Extraction well LAYNE not sampled during February 2007 due to well being off at time of sampling.

TABLE 4A
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
GROUND WATER ANALYTICAL RESULTS
ON-SITE WELLS
APRIL 2007

WELL NUMBER SCREENED INTERVAL (FT) PARAMETER	A 114-124	B 36-46	K 36-46	SC34S[2] 36-46	L 42-52	IWC1 15-20	IWC2 35-40	IWC3 55-60	IWC4 75-80	IWC5 95-100	W2 (R) 2-17	W4 55-75	SC9S 15-30	SC11S (R) 9-24	SC12S 15-25	SC32S [1] 15-25	SC12D 126-136	SC13S 14.7-24.7	SC13D 127-137	SC14S 12-27	SC15S 12.5-27.5	SC16S 12-27	SC20S 7-22	SC20D 129-139	SC22S 3-18	MWH-4 119-129	SC23S 9-24	SC25S 7-22	SC27S 7-22	W9 110-130	LAYNE 42-47	PLANT INFLUENT	PLANT EFFLUENT	FB041807	TB041807	TB041807A	TB041907	TB042007
VOCs (ug/L)																																						
Acrolein	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Acrylonitrile	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Benzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.1	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Bromoform	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Carbon tetrachloride	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
2-Chloroethyl vinyl ether	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Chloroform	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.9	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	0.37J	0.42J	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	196	U	U	U	U	NA	U	NA	NA	0.85J	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Methylene chloride	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Toluene	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	1.0	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	16.3	NA	U	NA	NA	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Trichloroethene	3.0	0.76J	1.9	1.8	NA	0.41J	0.55J	U	U	0.27J	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.5	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	496	U	U	8.3	U	NA	0.88J	NA	NA	8.7	U	U	U	U	U	U
Vinyl chloride	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Xylenes (total)	U	U	U	U	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.9	U	U	U	U	NA	U	NA	NA	U	U	U	U	U	U	U
Volatile TICs	U	U	3.48JN	1.67JN	NA	U	U	U	U	U	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	1513.98JN	NA	U	NA	NA	5.7J	U	U	U	U	U	U
INORGANICS (ug/L)																																						
Chromium (Total)	3350	983	1120	1090	2330	792	1160	U	48.5	297	19.7	191	42.8	U	52.7	53.4	U	U	U	83.9	74.7	U	34.1	U	12.1	2660	471	U	373	1760	1200	NA	NA	U	NA	NA	NA	NA
Hexavalent Chromium	U	U	980	1000	23	730	1300	U	22	61	U	190	13	U	47	47	U	30	U	89	57	U	U	U	U	1500	320	U	200	800	1200	NA	NA	U	NA	NA	NA	NA
Sodium	28700	95000	90600	96200	11600	78300	106000	7270	49700	79700	2160	12000	99900	184000	4390	12300	2810	28900	3970	16700	21400	11000	35600	U	8720	89400	30900	26900	19800	129000	129000	NA	NA	U	NA	NA	NA	NA
OTHER PARAMETERS (mg/L)																																						
pH*	9.62	9.12	8.38	8.38	8.77	8.94	8.87	9.02	8.71	9.30	9.10	8.78	9.44	8.88	8.96	8.96	9.41	8.65	8.67	9.01	8.58	8.51	9.29	9.16	8.25	9.07	8.58	9.17	8.82	9.26	9.88	9.25	9.05	NA	NA	NA	NA	NA
Sulfate	45.0	94.2	17.2	17.3	U	110	83.8	U	26.1	U	U	U	88.6	48.2	U	U	U	21.8	13.7	27.4	47.2	33.1	10.7	U	10.7	22.7	69.0	U	29.5	113	102	NA	NA	U	NA	NA	NA	NA

VOC Analysis performed via Method 624
Total metals performed via Method 6010B; Hexavalent Chromium via Method 7196A; and Sulfate via Method 300.0.
*** - pH measurements collected from the on-site wells during April 2007 should be considered suspect due to instrument malfunction.**
FT - Feet below ground surface.
U - Indicates compound analyzed for but not detected (organics and inorganics).
J - Indicates an estimated value (organics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Not analyzed
(1) - Duplicate sample of well SC12S
(2) - Duplicate sample of well K

TABLE 4B
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
GROUND WATER ANALYTICAL RESULTS
OFFSITE WELLS
APRIL 2007

WELL NUMBER SCREENED INTERVAL (FT) PARAMETER	SC1S 35-55	SC1D 85-95/ 100-115	SC2D (R) 106-116	SC3S 35-55	SC3D (R) 102-112	SC33D [1] 102-112	SC4S 35-45	SC4D 110-120	SC5S 5-20	SC5D 90-120	SC6S 45-75	SC6D 110-120	SC10S 35-55	SC10D 105-125	SC17S 13-28	SC17D 143-153	SC18S 4-19	SC18D 119-129	SC19S 2-17	SC19D 120-130	SC21S 3-18	SC21D 125-135	SC24S 5-20	SC24D 105-115	SC26D 127-137	SC28D 133-153	SC-30D 147-157	SC-31D 120-130	IW1 32-62	IW2 40-70	RW6S 55-75	RW6D 90-125	RIW2 30-55	FB041807	TB041807	TB041807A	TB041907	TB042007
VOCs (ug/L)																																						
Acrolein	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Acrylonitrile	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Benzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	0.20J	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Bromoform	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Carbon tetrachloride	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
2-Chloroethyl vinyl ether	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Chloroform	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	0.12	U	NA	U	NA	NA	NA	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
p-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.999J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	2.1	NA	NA	NA	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	0.38J	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	1.9	NA	NA	NA	U	U	U	U	U
cis-1,2-Dichloroethylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Methylene chloride	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Tetrachloroethene	U	U	0.39J	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	0.66J	U	U	U	U	U	0.62J	U	U	0.50J	1.4	NA	1.3	NA	NA	NA	U	U	U	U	U
Toluene	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	1.5	NA	NA	NA	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Trichloroethene	0.44J	9.7	3.4	1.6	7.7	8.1	NA	NA	U	4.8	0.26J	7.1	NA	NA	U	U	U	1.0	U	0.76J	0.83J	U	U	5.6	1.3	9.4	U	11.6	NA	15.6	NA	NA	NA	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Vinyl chloride	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Xylenes (total)	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
Volatile TICs	U	U	U	U	U	U	NA	NA	U	U	U	U	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	NA	U	NA	NA	NA	U	U	U	U	U
INORGANICS (ug/L)																																						
Chromium (Total)	U	U	9780	U	U	U	89.1	8890	U	1250	118	3590	U	1020	10.5	U	11.9	U	U	U	U	U	U	U	U	U	165	U	U	U	3750	576	2900	1560	U	NA	NA	NA	NA
Hexavalent Chromium	U	U	8900	U	U	U	20	9100	U	1200	99	3800	U	1200	U	U	U	U	U	U	U	U	U	U	U	U	170	U	U	U	3900	520	3100	1400	U	NA	NA	NA	NA
Sodium	51700	66300	53900	91900	53500	56400	16500	52400	7020	41600	111000	146000	71900	353000	23500	5020	2540	33900	9420	36600	20400	3190	10700	30900	U	229000	U	39200	47900	68400	153000	151000	67600	U	NA	NA	NA	NA
OTHER PARAMETERS (mg/L)																																						
pH	6.04	5.87	6.65	6.56	5.39	5.39	6.02	7.65	5.99	6.43	7.13	7.26	6.86	7.68	5.42	4.82	6.04	5.37	5.61	4.78	5.15	5.58	4.40	5.66	7.48	7.35	6.64	6.73	6.40	7.19	7.32	7.15	6.58	NA	NA	NA	NA	NA
Sulfate	69.6	63.6	38.2	144	64.3	61.9	U	U	16.3	48.1	107	258	62.8	177	15.7	U	14.1	22.6	20.9	54.1	13.6	10.7	86.7	60.3	U	172	U	35.1	69.2	54.7	103	132	105	U	NA	NA	NA	NA

*** - pH measurements collected from the on-site wells during April 2007 should be considered suspect due to instrument malfunction.**
VOC Analysis performed via Method 524.2 (well SC28D), all other sample results via Method 624.
Total metals performed via Method 6010B; Hexavalent Chromium via Method 7196A; and Sulfate via Method 300.0.
U - Indicates compound analyzed for but not detected (organics and inorganics).
J - Indicates an estimated value (organics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Not analyzed.
(1) - Duplicate sample of well SC3D (R).

TABLE 5A
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TRICHLOROETHENE, TOTAL CHROMIUM & HEXAVALENT CHROMIUM ANALYTICAL RESULTS
ONSITE WELLS
QUARTERLY SAMPLING: FEBRUARY 2007 THROUGH APRIL 2007

PARAMETER/DATE	A	B	K	SC34S[2]	L	IWC1	IWC2	IWC3	IWC4	IWC5	W2 (R)	W4	SC9S	SC11S (R)	SC12S	SC32S [1]	SC12D	SC13S	SC13D	SC14S	SC15S	SC16S	SC20S	SC20D	SC22S	MWH-4	SC23S	SC25S	SC27S	W9	LAYNE	PLANT INFLUENT	PLANT EFFLUENT
Trichloroethene (ug/L)																																	
02/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
03/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/07	3.0	0.76J	1.9	1.8	NA	0.41J	0.55J	U	U	0.27J	NA	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	496	U	U	8.3	U	NA	0.88J	NA	NA	8.7	U
Chromium (Total) (ug/L)																																	
02/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	NA	1960	NA	NA	NA
03/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	NA	7010	2260	NA	NA
04/07	3350	983	1120	1090	2330	792	1160	U	48.5	297	19.7	191	42.8	U	52.7	53.4	U	U	U	83.9	74.7	U	34.1	U	12.1	2660	471	U	373	1760	1200	NA	NA
Hexavalent Chromium (ug/L)																																	
02/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	NA	1800	NA	NA	NA
03/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	NA	4100	1100	NA	NA
04/07	U	U	980	1000	23	730	1300	U	22	61	U	190	13	U	47	47	U	30	U	89	57	U	U	U	U	1500	320	U	200	800	1200	NA	NA

Total metals performed via Method 6010; Hexavalent Chromium via Method 7196; Carbonate and Bicarbonate via Method 310.1; Sulfate, Chloride and Nitrate via Method 300.0; and TOC via Method 9060.
U - Indicates compound analyzed for but not detected (organics and inorganics).
J - Indicates an estimated value (organics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Not analyzed
(1) - Duplicate sample of well SC12S
(2) - Duplicate sample of well K

TABLE 5B
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TRICHLOROETHENE, TOTAL CHROMIUM & HEXAVALENT CHROMIUM ANALYTICAL RESULTS
OFF-SITE WELLS
QUARTERLY SAMPLING: FEBRUARY 2007 THROUGH APRIL 2007

PARAMETER/DATE	SC1S	SC1D	SC2D (R)	SC3S	SC3D (R)	SC33D [1]	SC4S	SC4D	SC5S	SC5D	SC6S	SC6D	SC10S	SC10D	SC17S	SC17D	SC18S	SC18D	SC19S	SC19D	SC21S	SC21D	SC24S	SC24D	SC26D	SC-28D	SC-30D	SC31D	IW1	IW2	RW6S	RW6D	RIW2
Trichloroethene (ug/L)																																	
02/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
03/07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/07	0.44J	9.7	3.4	1.6	7.7	8.1	NA	NA	U	4.8	0.26J	7.1	NA	NA	U	U	U	1.0	U	0.76J	0.83J	U	U	5.6	1.3	9.4	U	11.6	NA	15.6	NA	NA	NA
Chromium (Total) (ug/L)																																	
02/07	U	U	11700	U	U	NA	NA	NA	U	1620	NA	NA	U	2300	NA	NA	NA	NA	NA	NA	NA	NA	U	U	72.2	NA	NA	NA	U	NA	1520	3090	1680
03/07	U	U	11000	U	U	NA	NA	NA	U	1370	NA	NA	U	5980	NA	NA	NA	NA	NA	NA	NA	NA	U	U	114	NA	NA	NA	10.9	NA	733	2910	1530
04/07	U	U	9780	U	U	U	89.1	8890	U	1250	118	3590	U	1020	10.5	U	11.9	U	U	U	U	U	U	U	U	165	U	U	U	3750	576	2900	1560
Hexavalent Chromium (ug/L)																																	
02/07	U	U	10300	U	U	NA	NA	NA	U	1500	NA	NA	U	2400	NA	NA	NA	NA	NA	NA	NA	NA	U	U	51	NA	NA	NA	U	NA	1400	2900	1600
03/07	U	U	10000	U	U	NA	NA	NA	U	1300	NA	NA	U	5700	NA	NA	NA	NA	NA	NA	NA	NA	U	U	110	NA	NA	NA	U	NA	490	2900	1500
04/07	U	U	8900	U	U	U	20	9100	U	1200	99	3800	U	1200	U	U	U	U	U	U	U	U	U	U	U	170	U	U	U	3900	520	3100	1400

VOC Analysis performed via Method 524.2 (well SC28D), all other sample results via Method 624.
Total metals performed via Method 6010; Hexavalent Chromium via Method 7196; Carbonate and Bicarbonate via Method 310.1; Sulfate, Chloride and Nitrate via Method 300.0; and TOC via Method 9060.
U - Indicates compound analyzed for but not detected (organics and inorganics).
J - Indicates an estimated value (organics).
B - The analyte is found in the associated blank as well as in the sample (organics) or the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but not greater than or equal to the Instrument Detection Limit (IDL) (inorganics).
NA - Not analyzed.
(1) - Duplicate sample of well SC3D (R).

Section 3

LEGEND

W2	•	EXISTING WELL LOCATION AND NUMBER
SC18S	⊕	RI MONITORING WELL
IW-1	•	IRRIGATION WELL AND NUMBER
MOHAN	•	DOMESTIC WELL
	(R)	REPLACEMENT WELL
	⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
	⊕	USGS OBSERVATION WELL

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP-CITY OF VINELAND, OCTOBER 1, 1971.
3. MONITORING WELL SC32D NOT SHOWN DUE TO ITS DISTANCE FROM THE SITE.

MADISON
OBS-2A
SC-15S
PROPERTY LINE
SC-16S
SC-23S
SC-27S
SC-14S
W3D
SC-20S
SC-20D
SC11S (R)
SC-12D
SC12S
SC-17D
SC-17S
ANDREWS GLASS SITE
W4
IWC4
IWC2
W1
IWC5
IWC1
IWC3
K
LAYNE
W9
SC9S
POND
A
B
SC-22S
SC-22D
MWH-4
SC-13D
SC13S
SC25S
W2 (R)
PROPERTY LINE
GORGO LANE
WEYMOUTH
SC-18D
SC-18S
SC6S
RW6D
RW6S
SC10S
SC6D
SC10D
ROAD
SC-26D
E WEYMOUTH RD
PROPERTY LINE
SC-31D
SHIELDALLOY METALLURGICAL CORPORATION
SC5D
SC-5S
SC-2D (R)
SC4D
SC4S
BRANCH
SC-19D
SC-19S
SC-28D
FARM PARCEL
IW2
RIW2
SC-24D
SC-24S
SC-21D
SC-21S
IW1
N. WEST AVENUE
SC3S
SC3D (R)
IW3
HUDSON
SC1S
SC1D
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC-29D
LACROCE PROPERTY
PROSPECT AVENUE
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC-30D

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate-1.dwg Layout:FIG-1 July 06, 2007-1:59PM KHOLLENBECK

TRC
21 Griffin Road North
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(860) 298-9692

SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 1
SITE PLAN

Date: 06/07 | **Project No.** 112434-00LTOM-009320

LEGEND

W2 •	EXISTING WELL LOCATION AND NUMBER
SC18S ⊕	RI MONITORING WELL
IW-1 •	IRRIGATION WELL AND NUMBER
MOHAN ■	DOMESTIC WELL
(R)	REPLACEMENT WELL
⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
⊕	USGS OBSERVATION WELL
90 — — —	GROUND WATER CONTOUR ELEVATION IN WELL IN APRIL, 2007 RELATIVE TO VERTICAL DATUM NGVD 1929 (DASHED WHERE INFERRED)
(92.90)	GROUND WATER ELEVATION IN WELL IN APRIL, 2007 RELATIVE TO VERTICAL DATUM NGVD 1929

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP–CITY OF VINELAND, OCTOBER 1, 1971.

OBS-2A

MADISON

PROPERTY LINE

SC-15S (96.66)
SC-16S (93.02)
SC-23S (93.76)
SC-27S (94.25)
SC-14S (97.38)
W3D
(94.80)
SC-20S (93.95)
SC-20D
SC11S (R) (96.37)
SC-12D
SC12S (95.71)
SC-17D
W4
SC-17S (92.90)
ANDREWS GLASS SITE
(93.31)
IWC4
IWC2
IWC5
IWC3
W1
IWC1(93.31)
K (92.26)
LAYNE
W9
A
B
SC9S (91.98)
POND
(92.01)
SC-22S (93.70)
SC-22D
MWH-4
SC-13D
SC13S (96.64)
SC25S (96.82)
W2 (R) (95.38)
PROPERTY LINE
GORGO LANE
SC-18D
SC-18S (89.20)
WEYMOUTH
(90.82) SC6S
RW6D
RW6S
SC10S (90.34)
SC6D
SC10D
ROAD
SC-26D
SC4D
SC4S (88.73)
BRANCH
PROPERTY LINE
SC-31D
SHIELDALLOY METALLURGICAL CORPORATION
SC5D
SC-5S (87.17)
SC-2D (R)
SC-19D
SC-19S (87.98)
SC-28D
SC-24D
SC-24S (86.97)
FARM PARCEL
RIW2
IW2
SC-21D
SC-21S (88.13)
IW1 (87.05)
SC3S (86.40)
SC3D (R)
IW3
N. WEST AVENUE
HUDSON
SC1S (86.24)
SC1D
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC-29D
LACROCE PROPERTY
PROSPECT AVENUE
E WEYMOUTH RD
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC-30D

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate-1.dwg Layout:FIG-2 July 06, 2007-2:00PM KHOLLENBECK

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SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 2
GROUND WATER CONTOURS SHALLOW WELLS - APRIL, 2007

Date: 06/07 | Project No. 112434-00LTOM-009320

LEGEND

W2	•	EXISTING WELL LOCATION AND NUMBER
SC18S	⊕	RI MONITORING WELL
IW-1	•	IRRIGATION WELL AND NUMBER
MOHAN	■	DOMESTIC WELL
(R)		REPLACEMENT WELL
	⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
	⊕	USGS OBSERVATION WELL
85	— — —	GROUND WATER CONTOUR ELEVATION IN WELL IN APRILR, 2007 RELATIVE TO VERTICAL DATUM NGVD 1929 (DASHED WHERE INFERRED)
(85.23)		GROUND WATER ELEVATION IN WELL IN APRIL, 2007 RELATIVE TO VERTICAL DATUM NGVD 1929

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP–CITY OF VINELAND, OCTOBER 1, 1971.

OBS–2A
MADISON
SC–15S
PROPERTY LINE
SC–16S
SC–23S
SC–27S
SC–14S
SC–20S
SC–20D (93.88)
W3D (95.85)
SC11S (R)
SC–12D (94.94)
SC12S
95
94
93
92
91
90
ANDREWS GLASS SITE
SC–17D (90.79)
SC–17S
W4 (92.69)
(93.36) IWC4
IWC2
W1
(93.32) IWC5
IWC1
(93.32) IWC3
K
LAYNE
W9
SC9S
POND
SC–22S
SC–22D (93.27)
MWH–4 (93.04)
SC–13D (94.56)
SC13S
SC25S
A
B
(91.93)
W2 (R)
PROPERTY LINE
GORGO LANE
ROAD
SC–26D (92.65)
E WEYMOUTH RD
WEYMOUTH
SC–18D (88.78)
SC–18S
SC6S
RW6D
RW6S
SC10S
SC6D (90.16)
SC10D (90.50)
SC4S
SC4D (86.92)
BRANCH
SC–19D (88.76)
SC–19S
SC–28D (90.27)
PROPERTY LINE
SC–29D
LACROCE PROPERTY
SC–31D (86.47)
SHIELDALLOY METALLURGICAL CORPORATION
SC5D (87.04)
SC–5S
SC–2D (R) (87.30)
FARM PARCEL
IW2 (85.79)
RIW2
SC–24D (86.04)
SC–24S
SC–21D (88.00)
SC–21S
IW1
IW3
SC3S
SC3D (R) (86.57)
SC1S
HUDSON
SC1D (85.60)
N. WEST AVENUE
WEST BOULEVARD
EAST BOULEVARD
PROSPECT AVENUE
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC–30D (89.94)
89
88
87
86
97

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate–1.dwg Layout:FIG–3 July 06, 2007–2:02PM KHOLLENBECK

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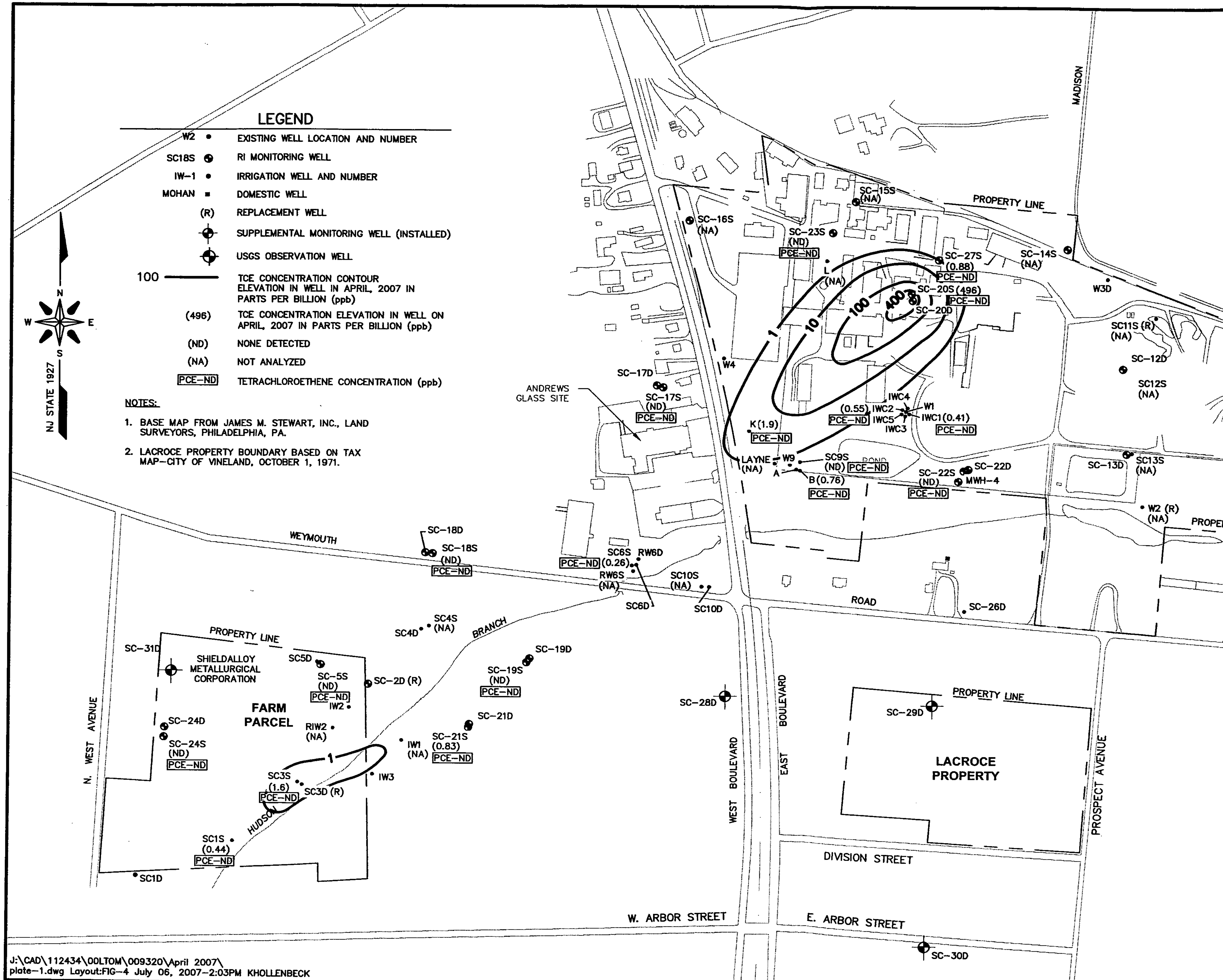
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 3
GROUND WATER CONTOURS
DEEP WELLS - APRIL, 2007

Date: 06/07 | **Project No.** 112434–00LTOM–009320


LEGEND
W2 • EXISTING WELL LOCATION AND NUMBER
SC18S RI MONITORING WELL
IW-1 • IRRIGATION WELL AND NUMBER
MOHAN ▪ DOMESTIC WELL
(R) REPLACEMENT WELL
SUPPLEMENTAL MONITORING WELL (INSTALLED)
USGS OBSERVATION WELL
100 TCE CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(496) TCE CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND) NONE DETECTED
(NA) NOT ANALYZED
PCE-ND TETRACHLOROETHENE CONCENTRATION (ppb)
NOTES:
1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP-CITY OF VINELAND, OCTOBER 1, 1971.
N S E W
NJ STATE 1927
ANDREWS GLASS SITE
MADISON
PROPERTY LINE
SC-15S (NA)
SC-16S (NA)
SC-23S (ND) PCE-ND
SC-27S (0.88) PCE-ND
SC-14S (NA)
L (NA)
SC-20S (496) PCE-ND
SC-20D
1
10
100
400
W3D
SC11S (R) (NA)
SC-12D
SC12S (NA)
OBS-2A
W4
SC-17D
SC-17S (ND) PCE-ND
IWC4
(0.55) IWC2
PCE-ND IWC5
IWC3
W1
IWC1 (0.41) PCE-ND
K (1.9) PCE-ND
LAYNE (NA)
W9
A
SC9S (ND) PCE-ND
B (0.76) PCE-ND
POND
SC-22S (ND) PCE-ND
SC-22D
MWH-4
SC-13D
SC13S (NA)
SC25S (NA)
W2 (R) (NA)
PROPERTY LINE
GORGO LANE
WEYMOUTH
SC-18D
SC-18S (ND) PCE-ND
SC6S RW6D
PCE-ND (0.26)
RW6S (NA)
SC6D
SC10S (NA)
SC10D
ROAD
SC-26D
E WEYMOUTH RD
SC4S (NA)
SC4D
BRANCH
PROPERTY LINE
SC-31D
SHIELDALLOY METALLURGICAL CORPORATION
SC5D
SC-5S (ND) PCE-ND
IW2
SC-2D (R)
SC-19D
SC-19S (ND) PCE-ND
SC-21D
SC-21S (0.83) PCE-ND
IW1 (NA)
FARM PARCEL
RIW2 (NA)
SC-24D
SC-24S (ND) PCE-ND
N. WEST AVENUE
SC3S (1.6) PCE-ND
SC3D (R)
IW3
HUDSON
SC1S (0.44) PCE-ND
SC1D
SC-28D
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC-29D
LACROCE PROPERTY
PROSPECT AVENUE
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC-30D
0 400' 800'
GRAPHIC SCALE
J:\CAD\112434\00LTOM\009320\April 2007\
plate-1.dwg Layout:FIG-4 July 06, 2007-2:03PM KHOLLENBECK

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SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 4
TCE CONCENTRATION (ppb)
SHALLOW WELLS - APRIL, 2007

Date: 06/07 | Project No. 112434-00LTOM-009320

LEGEND

W2 •	EXISTING WELL LOCATION AND NUMBER
SC18S ⊕	RI MONITORING WELL
IW-1 •	IRRIGATION WELL AND NUMBER
MOHAN ■	DOMESTIC WELL
(R)	REPLACEMENT WELL
⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
⊕	USGS OBSERVATION WELL
100 ———	TCE CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(15.6)	TCE CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND)	NONE DETECTED
(NA)	NOT ANALYZED
PCE-ND	TETRACHLOROETHENE CONCENTRATION (ppb)

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP-CITY OF VINELAND, OCTOBER 1, 1971.

MADISON
OBS-2A (NA)
SC-15S
PROPERTY LINE
SC-16S
SC-23S
SC-27S
SC-14S
W3D
SC-20S
SC-20D (ND) PCE-ND
SC11S (R)
SC-12D (NA)
SC12S
ANDREWS GLASS SITE
(ND) SC-17D PCE-ND
SC-17S
W4 (NA)
IWC4 (ND) PCE-ND
IWC2
W1
(0.27) IWC5
IWC1
IWC3 (ND) PCE-ND
K
LAYNE
(NA)
W9
SC9S
POND
A
B
(3.0) PCE-ND
SC-22S
SC-22D (NA)
MWH-4 (8.3) PCE-ND
SC-13D (NA)
SC13S
SC25S
W2 (R)
PROPERTY LINE
(1.0) PCE-0.66
SC-18D
SC-18S
WEYMOUTH
SC6S
RW6D (NA)
RW6S
SC10S
SC6D (7.1) PCE-ND
SC10D (NA)
ROAD
SC-26D (1.3) PCE-ND
1
GORGO LANE
E WEYMOUTH RD
SC4S
SC4D (NA)
BRANCH
PROPERTY LINE
SC-31D (11.6) PCE-1.4
SHIELDALLOY METALLURGICAL CORPORATION
SC5D (4.8) PCE-ND
SC-5S
SC-2D (R) (3.4) PCE-0.39
SC-19D (0.76) PCE-ND
SC-19S
N. WEST AVENUE
FARM PARCEL
15
IW2 (15.6) PCE-1.3
RIW2
SC-24D (5.6) PCE-0.62
SC-24S
IW1
SC-21D (ND)
SC-21S PCE-ND
SC-28D (9.4) PCE-ND
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC-29D
LACROCE PROPERTY
PROSPECT AVENUE
SC3S
IW3
SC3D (R) (8.1) PCE-ND
10
HUDSON
SC1S
SC1D (9.7) PCE-ND
W. ARBOR STREET
DIVISION STREET
E. ARBOR STREET
SC-30D (ND) PCE-0.50

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate-1.dwg Layout:FIG-5 July 06, 2007-2:03PM KHOLLENBECK

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SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 5
TCE CONCENTRATIONS (ppb)
DEEP WELLS - APRIL, 2007

Date: 06/07 | Project No. 112434-00LTOM-009320

LEGEND

W2 •	EXISTING WELL LOCATION AND NUMBER
SC18S ⊕	RI MONITORING WELL
IW-1 •	IRRIGATION WELL AND NUMBER
MOHAN ■	DOMESTIC WELL
(R)	REPLACEMENT WELL
⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
⊕	USGS OBSERVATION WELL
100 ———	TOTAL CHROMIUM CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(576)	TOTAL CHROMIUM CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND)	NONE DETECTED

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP–CITY OF VINELAND, OCTOBER 1, 1971.

OBS–2A
MADISON
SC–15S (74.7)
PROPERTY LINE
SC–16S (ND)
SC–23S (471)
SC–27S (373)
SC–14S (83.9)
L (2330)
SC–20S (34.1)
SC–20D
W3D
SC11S (R) (ND)
SC–12D
SC12S (53.4)
SC–17D
W4
1000
ANDREWS GLASS SITE
SC–17S (10.5)
IWC4
(1160) IWC2
W1
IWC1 (792)
IWC5
IWC3
K (1120)
500
LAYNE (1200) A
W9
SC9S (42.8)
POND
B (983)
SC–22S (12.1)
SC–22D
MWH–4
SC–13D
SC13S (ND)
SC25S (ND)
W2 (R) (19.7)
PROPERTY LINE
GORGO LANE
SC–18D
WEYMOUTH
SC–18S (11.9)
100
SC6S (118)
RW6D
RW6S (576)
SC10S (ND)
SC6D
SC10D
ROAD
SC–26D
SC4S (89.1)
SC4D
BRANCH
PROPERTY LINE
SC–31D
SC5D
SC–5S (ND)
SC–2D (R)
SC–19D
SC–19S (ND)
SHIELDALLOY METALLURGICAL CORPORATION
FARM PARCEL
IW2
RIW2 (1560)
1000
500
100
SC–21D
SC–21S (ND)
IW1 (ND)
SC–28D
SC–24D
SC–24S (ND)
SC3S (ND)
SC3D (R)
IW3
N. WEST AVENUE
HUDSON
SC1S (ND)
SC1D
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC–29D
LACROCE PROPERTY
PROSPECT AVENUE
E WEYMOUTH RD
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC–30D

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate–1.dwg Layout:FIG–6 July 06, 2007–2:04PM KHOLLENBECK

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SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 6
TOTAL CHROMIUM CONCENTRATION (ppb)
SHALLOW WELLS - APRIL, 2007

Date: 06/07 | **Project No.** 112434–00LTOM–009320

LEGEND

W2 •	EXISTING WELL LOCATION AND NUMBER
SC18S ⊕	RI MONITORING WELL
IW-1 •	IRRIGATION WELL AND NUMBER
MOHAN ■	DOMESTIC WELL
(R)	REPLACEMENT WELL
⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
⊕	USGS OBSERVATION WELL
100 ———	TOTAL CHROMIUM CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(3350)	TOTAL CHROMIUM CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND)	NONE DETECTED
(NA)	NOT ANALYZED

N
W E
S
NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP–CITY OF VINELAND, OCTOBER 1, 1971.

ANDREWS GLASS SITE
SC-17D (ND)
SC-17S
W4 (191)
K
L
SC-16S
SC-15S
SC-23S
PROPERTY LINE
SC-27S
SC-14S
SC-20S
SC-20D (ND)
W3D
SC11S (R)
SC-12D (ND)
SC12S
IWC4 (48.5)
IWC2
W1
(297) IWC5
IWC1
IWC3 (ND)
LAYNE
A
B
(1760)
W9
(3350)
SC9S
POND
SC-22S
SC-22D (NA)
MWH-4 (2660)
SC-13D (ND)
SC13S
SC25S
W2 (R)
PROPERTY LINE
MADISON
OBS-2A (NA)
GORGO LANE
WEYMOUTH
SC-18D (ND)
SC-18S
SC6S
RW6D (2900)
RW6S
SC10S
SC6D (3590)
SC10D (1020)
ROAD
SC-26D (ND)
E WEYMOUTH RD
100
1000
5000
PROPERTY LINE
SC-31D (ND)
SHIELDALLOY METALLURGICAL CORPORATION
SC5D (1250)
SC-5S
SC-2D (R) (9780)
SC4D (8890)
SC4S
BRANCH
SC-19D (ND)
SC-19S
SC-28D (165)
FARM PARCEL
IW2 (3750)
RIW2
SC-21D (ND)
SC-21S
IW1
SC-24D (ND)
SC-24S
N. WEST AVENUE
SC3S
IW3
SC3D (R) (ND)
HUDSON
SC1S
SC1D (ND)
WEST BOULEVARD
EAST BOULEVARD
PROPERTY LINE
SC-29D
LACROCE PROPERTY
PROSPECT AVENUE
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC-30D (ND)

0 400' 800'
GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\plate-1.dwg Layout:FIG-7 July 06, 2007-2:04PM KHOLLENBECK

TRC
21 Griffin Road North
Windsor, CT 06095
(860) 298-9692

SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 7
TOTAL CHROMIUM CONCENTRATION (ppb) DEEP WELLS - APRIL, 2007

Date: 06/07 | Project No. 112434-00LTOM-009320

LEGEND

W2	•	EXISTING WELL LOCATION AND NUMBER
SC18S	⊕	RI MONITORING WELL
IW-1	•	IRRIGATION WELL AND NUMBER
MOHAN	■	DOMESTIC WELL
(R)		REPLACEMENT WELL
	⊕	SUPPLEMENTAL MONITORING WELL (INSTALLED)
	⊕	USGS OBSERVATION WELL
100	——	HEXAVALENT CHROMIUM CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(520)		HEXAVALENT CHROMIUM CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND)		NONE DETECTED

N
W E
S

NJ STATE 1927

NOTES:

1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP–CITY OF VINELAND, OCTOBER 1, 1971.

OBS–2A

MADISON

SC–15S (67)

PROPERTY LINE

SC–16S (ND)

SC–23S (320)

SC–27S (200)

SC–14S (89)

L (23)

SC–20S (ND)

SC–20D

W3D

SC11S (R) (ND)

SC–12D

SC12S (47)

SC–17D

ANDREWS GLASS SITE

SC–17S (ND)

IWC4

(1300) IWC2

W1

IWC5

IWC1 (730)

IWC3

K (1000)

LAYNE (1200) A

W9

SC9S (13)

ND

B (ND)

SC–22S (ND)

SC–22D

MWH–4

SC–13D

SC13S (30)

SC25S (ND)

W2 (R) (ND)

PROPERTY LINE

GORGO LANE

SC–18D

WEYMOUTH

SC–18S (ND)

SC6S (99)

RW6D

RW6S (520)

SC10S (ND)

SC6D

SC10D

ROAD

SC–26D

SC4S

SC4D (20)

BRANCH

PROPERTY LINE

SC–31D

SHIELDALLOY METALLURGICAL CORPORATION

SC5D

SC–5S (ND)

SC–2D (R)

SC–19D

SC–19S (ND)

SC–28D

IW2

FARM PARCEL

RIW2 (1400)

SC–24D

SC–24S (ND)

SC–21D

SC–21S (ND)

IW1 (ND)

N. WEST AVENUE

SC3S (ND)

SC3D (R)

IW3

HUDSON

SC1S (ND)

SC1D

WEST BOULEVARD

EAST BOULEVARD

PROPERTY LINE

SC–29D

LACROCE PROPERTY

PROSPECT AVENUE

E WEYMOUTH RD

DIVISION STREET

W. ARBOR STREET

E. ARBOR STREET

SC–30D

100

500

1000

0 400' 800'

GRAPHIC SCALE

J:\CAD\112434\00LTOM\009320\April 2007\
plate–1.dwg Layout:FIG–8 July 06, 2007–2:05PM KHOLLENBECK

TRC
21 Griffin Road North
Windsor, CT 06095
(860) 298-9692

SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY

FIGURE 8
HEXAVALENT CHROMIUM CONCENTRATION (ppb)
SHALLOW WELLS - APRIL, 2007

Date: 06/07 | Project No. 112434–00LTOM–009320

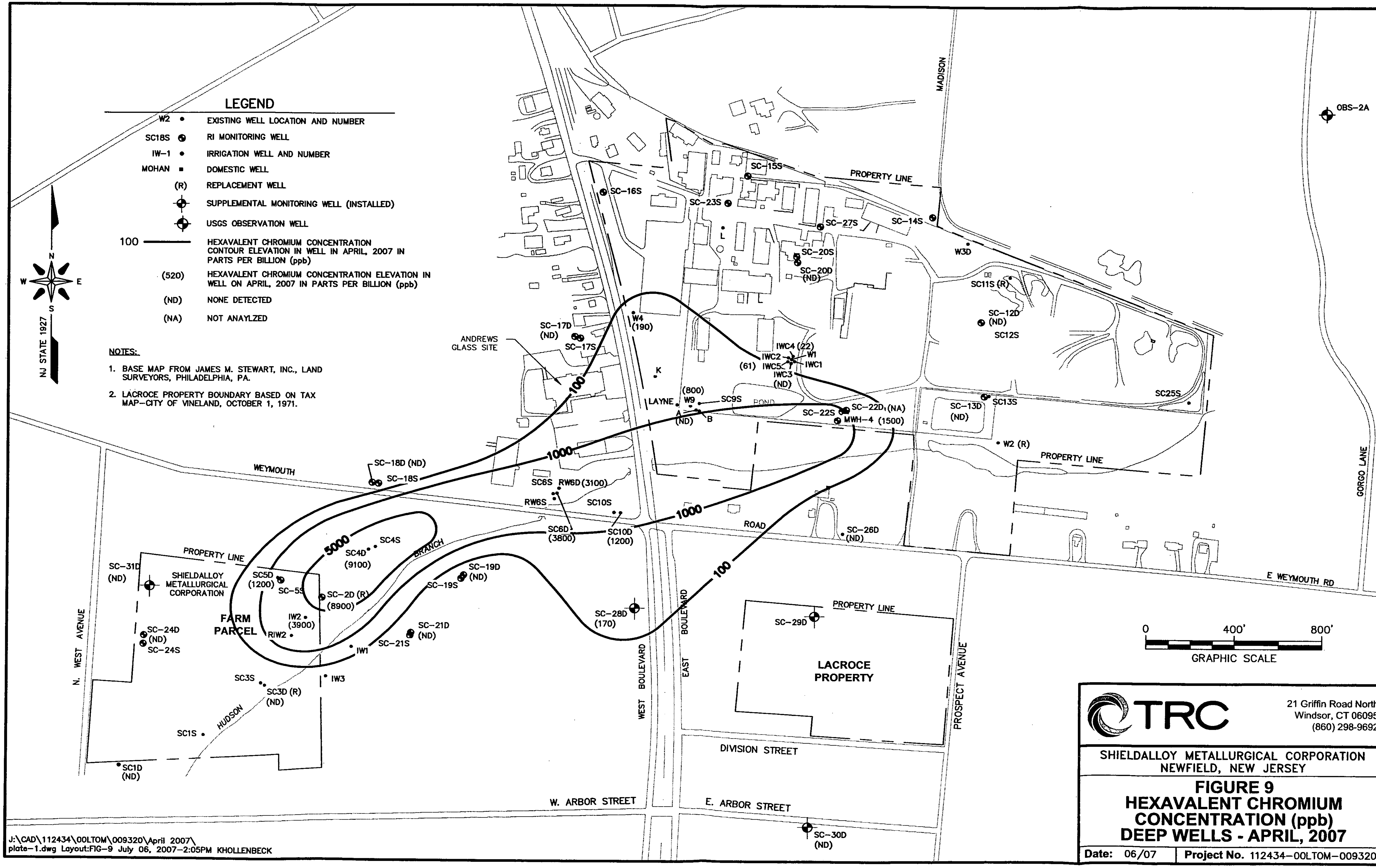

LEGEND
W2 • EXISTING WELL LOCATION AND NUMBER
SC18S RI MONITORING WELL
IW-1 • IRRIGATION WELL AND NUMBER
MOHAN ▪ DOMESTIC WELL
(R) REPLACEMENT WELL
SUPPLEMENTAL MONITORING WELL (INSTALLED)
USGS OBSERVATION WELL
100 HEXAVALENT CHROMIUM CONCENTRATION CONTOUR ELEVATION IN WELL IN APRIL, 2007 IN PARTS PER BILLION (ppb)
(520) HEXAVALENT CHROMIUM CONCENTRATION ELEVATION IN WELL ON APRIL, 2007 IN PARTS PER BILLION (ppb)
(ND) NONE DETECTED
(NA) NOT ANAYLZED
N
S
W
E
NJ STATE 1927
NOTES:
1. BASE MAP FROM JAMES M. STEWART, INC., LAND SURVEYORS, PHILADELPHIA, PA.
2. LACROCE PROPERTY BOUNDARY BASED ON TAX MAP-CITY OF VINELAND, OCTOBER 1, 1971.
MADISON
OBS-2A
PROPERTY LINE
SC-15S
SC-16S
SC-23S
SC-27S
SC-14S
SC-20S
SC-20D (ND)
W3D
SC11S (R)
SC-12D (ND)
SC12S
L
W4 (190)
SC-17D (ND)
SC-17S
ANDREWS GLASS SITE
K
IWC4 (22)
IWC2
W1
(61) IWC5
IWC1
IWC3 (ND)
100
(800)
LAYNE
W9
SC9S
POND
A (ND)
B
SC-22D (NA)
SC-22S
MWH-4 (1500)
SC-13D (ND)
SC13S
SC25S
W2 (R)
PROPERTY LINE
1000
WEYMOUTH
SC-18D (ND)
SC-18S
SC6S
RW6D (3100)
RW6S
SC10S
SC6D (3800)
SC10D (1200)
1000
ROAD
SC-26D (ND)
GORGO LANE
E WEYMOUTH RD
SC4S
5000
SC4D (9100)
BRANCH
PROPERTY LINE
SC-31D (ND)
SHIELDALLOY METALLURGICAL CORPORATION
SC5D (1200)
SC-5S
SC-2D (R) (8900)
SC-19D (ND)
SC-19S
100
FARM PARCEL
IW2 (3900)
RIW2
SC-24D (ND)
SC-24S
N. WEST AVENUE
SC-21D (ND)
SC-21S
IW1
SC-28D (170)
SC-29D
PROPERTY LINE
LACROCE PROPERTY
SC3S
SC3D (R) (ND)
IW3
HUDSON
SC1S
SC1D (ND)
WEST BOULEVARD
EAST BOULEVARD
PROSPECT AVENUE
DIVISION STREET
W. ARBOR STREET
E. ARBOR STREET
SC-30D (ND)
0 400' 800'
GRAPHIC SCALE
J:\CAD\112434\00LTOM\009320\April 2007\
plate-1.dwg Layout:FIG-9 July 06, 2007-2:05PM KHOLLENBECK
TRC
21 Griffin Road North
Windsor, CT 06095
(860) 298-9692
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NEW JERSEY
FIGURE 9
HEXAVALENT CHROMIUM
CONCENTRATION (ppb)
DEEP WELLS - APRIL, 2007
Date: 06/07
Project No. 112434-00LTOM-009320

FIGURE 10
SHIELDALLOY METALURGICAL CORPORATION
NEWFIELD, NJ
TCE CONCENTRATIONS IN SHALLOW MONITORING WELLS
APRIL 2001 - APRIL 2007

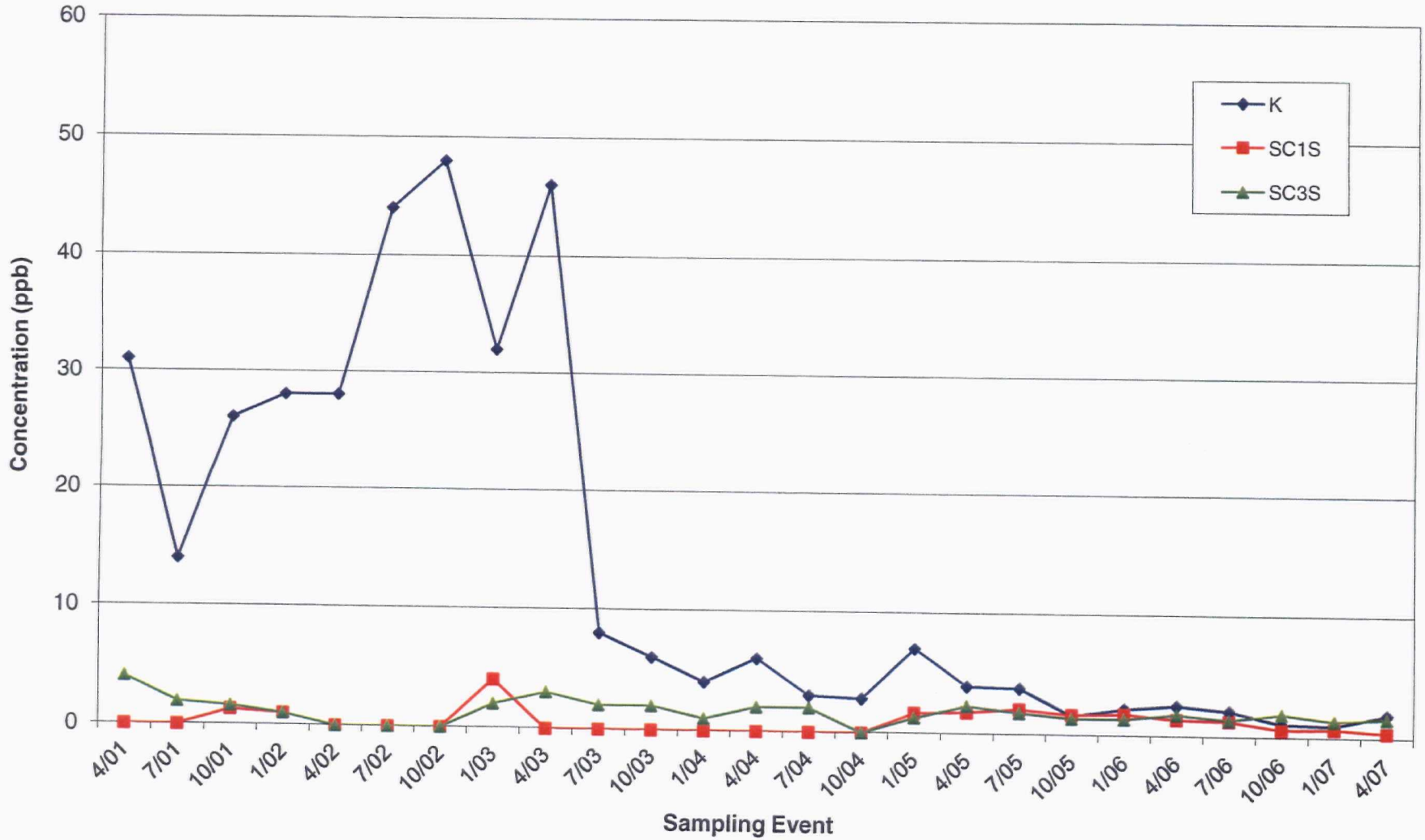


FIGURE 11
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TCE CONCENTRATION IN DEEP MONITORING WELLS
APRIL 1995 - APRIL 2007

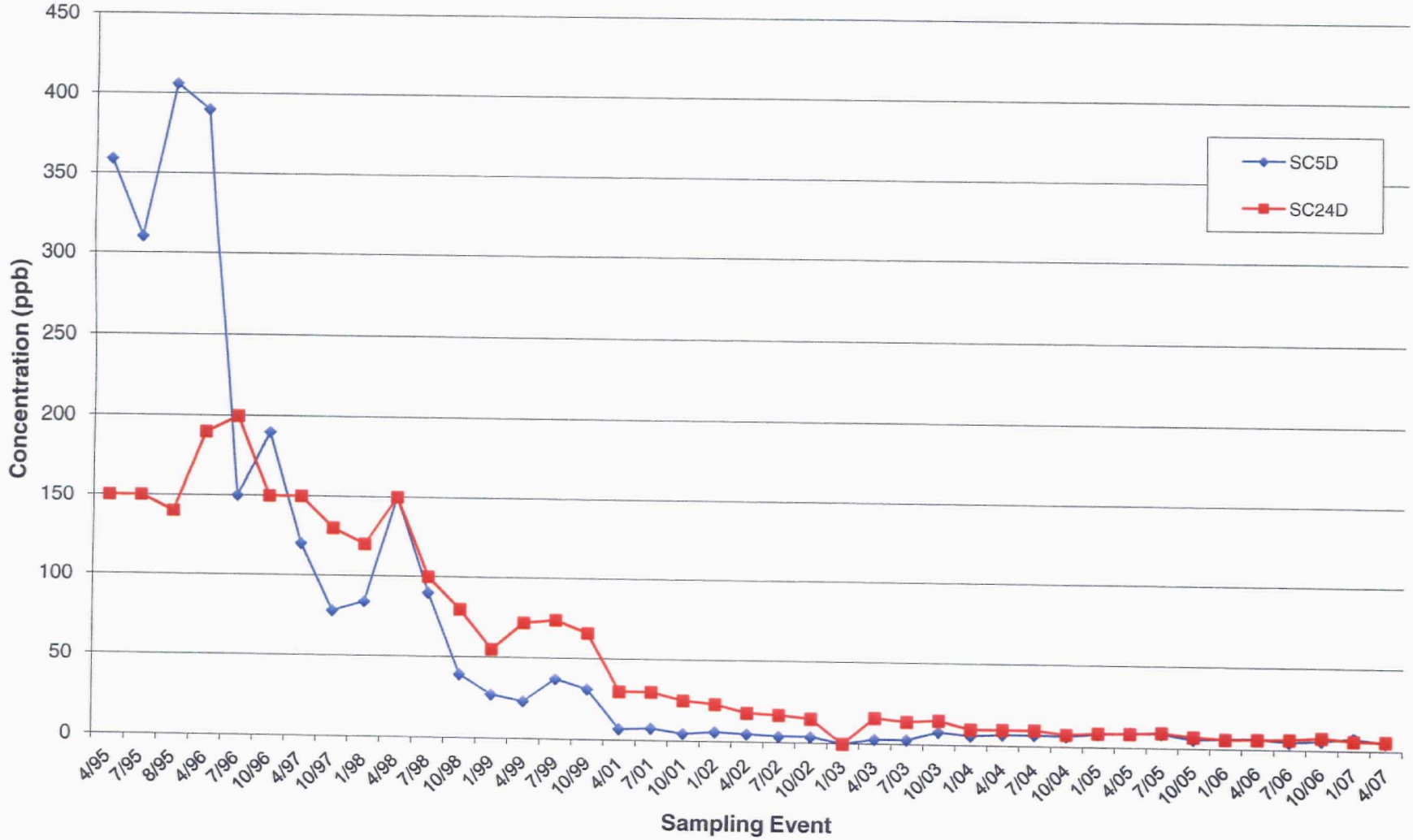
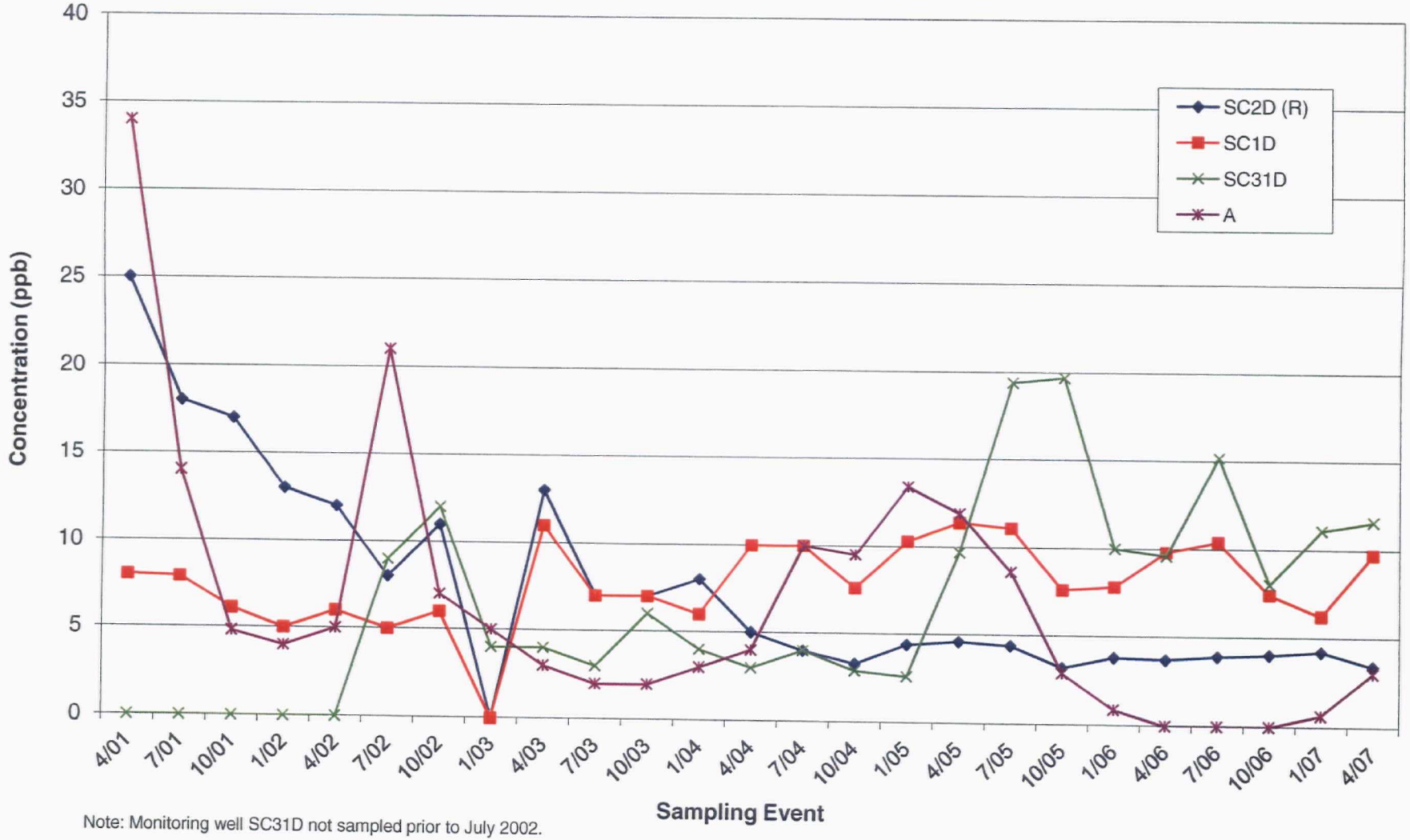


FIGURE 12
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TCE CONCENTRATIONS IN DEEP MONITORING WELLS
APRIL 2001 - APRIL 2007



Note: Monitoring well SC31D not sampled prior to July 2002.

FIGURE 13
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATIONS IN SHALLOW MONITORING WELLS
APRIL 2001 - APRIL 2007

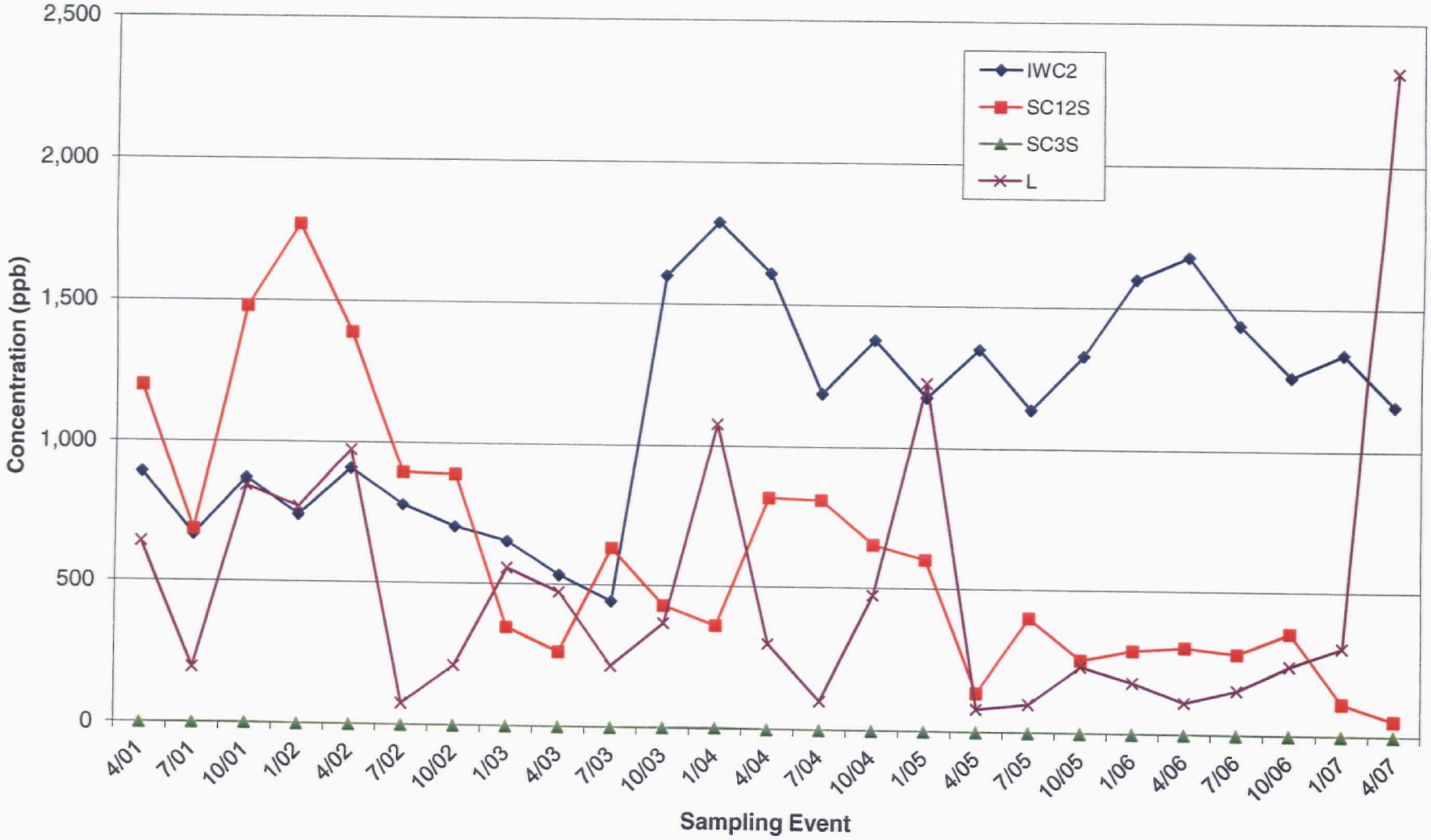
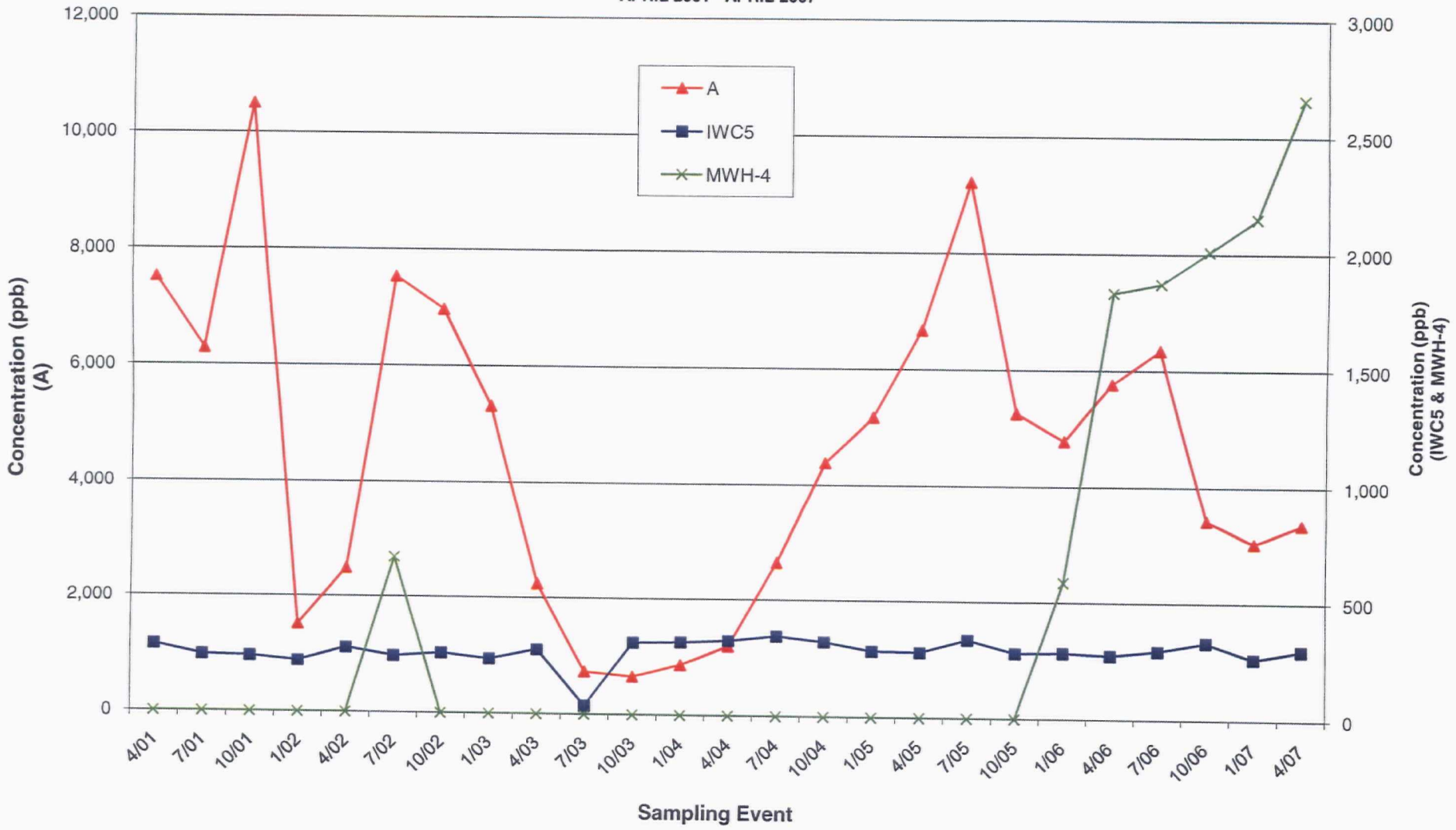


FIGURE 14
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATIONS IN SHALLOW EXTRACTION WELLS
APRIL 2001 - APRIL 2007

Notes: Extraction well LAYNE not analyzed for total chromium in April 2002
Extraction well/treatment system shutdown during January 2006 sampling. Samples collected from residual water in sample tap piping.

FIGURE 15
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATIONS IN DEEP MONITORING WELLS
APRIL 2001 - APRIL 2007



Notes: Sampling of well SC22D discontinued after October 2006 and substituted with well MWH-4 starting with the January 2006 sampling event
Monitoring well MWH-4 was initially sampled by TRC as part of an expanded ground water monitoring program during July 2002

FIGURE 16
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATION IN DEEP MONITORING WELL IW-2
APRIL 1994 - APRIL 2007

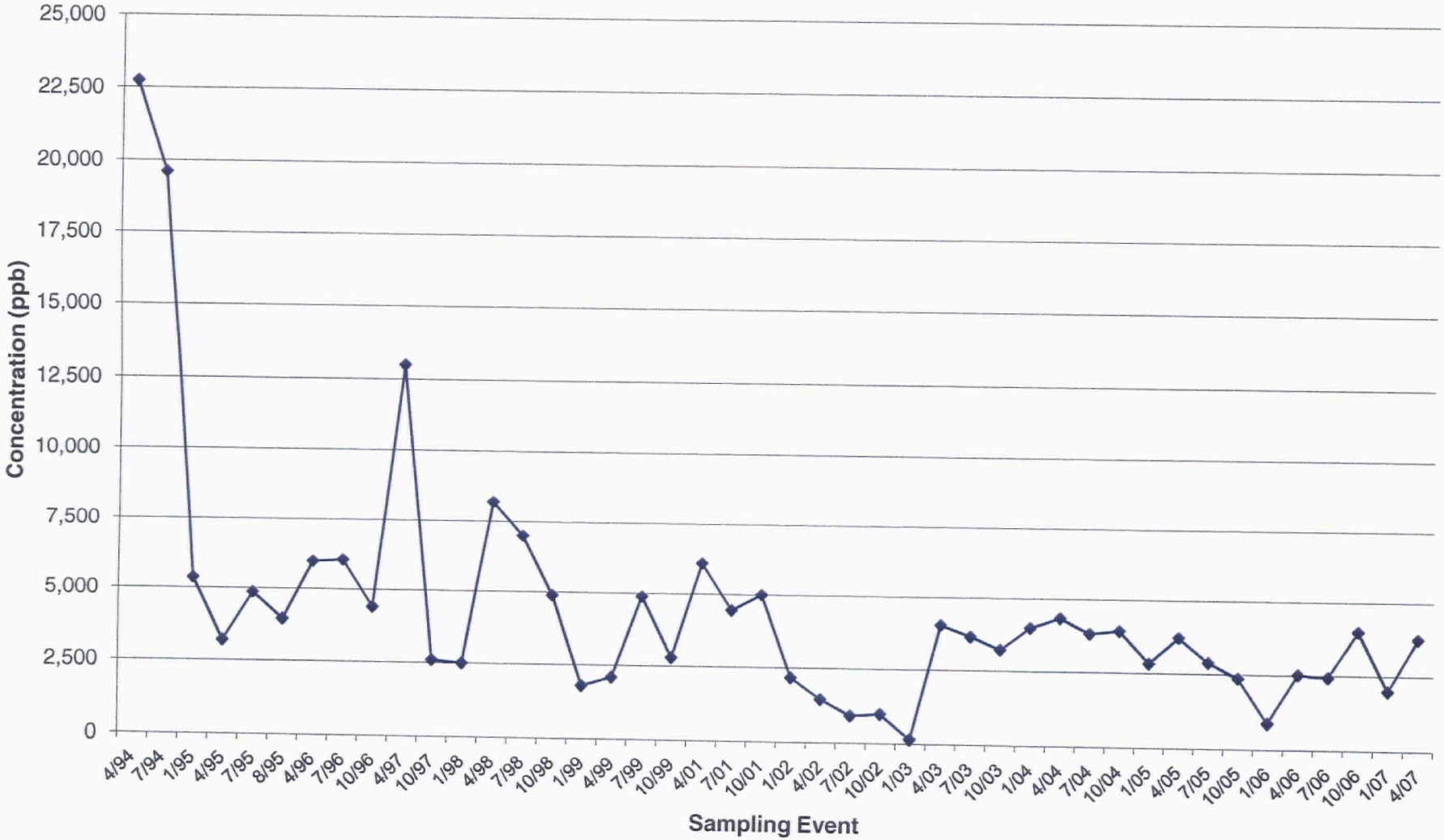


FIGURE 17
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATION IN DEEP MONITORING WELL SC2D(R)
APRIL 1999 - APRIL 2007

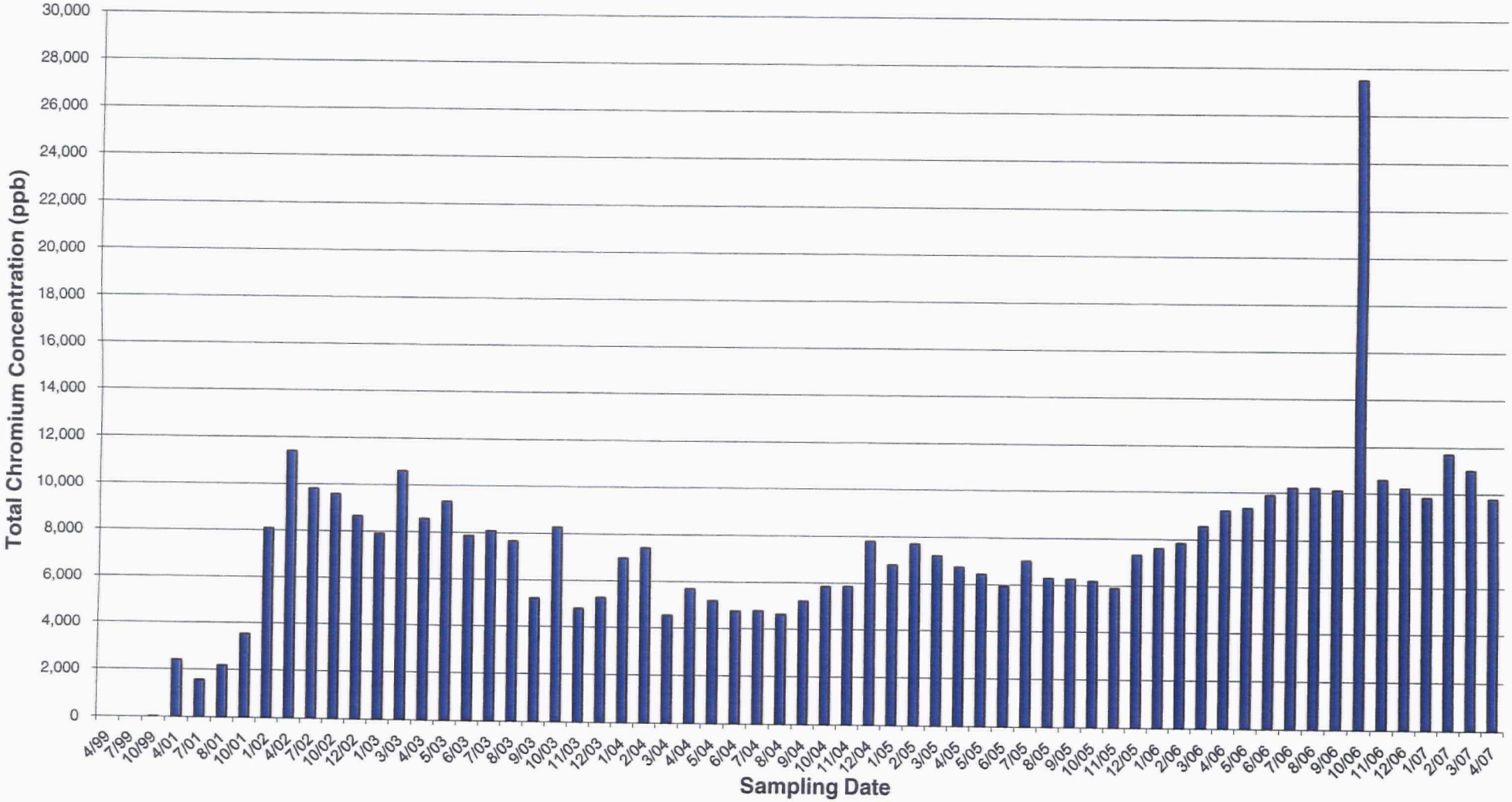


FIGURE 18
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATION IN DEEP MONITORING WELL SC5D
JANUARY 1994 - APRIL 2007

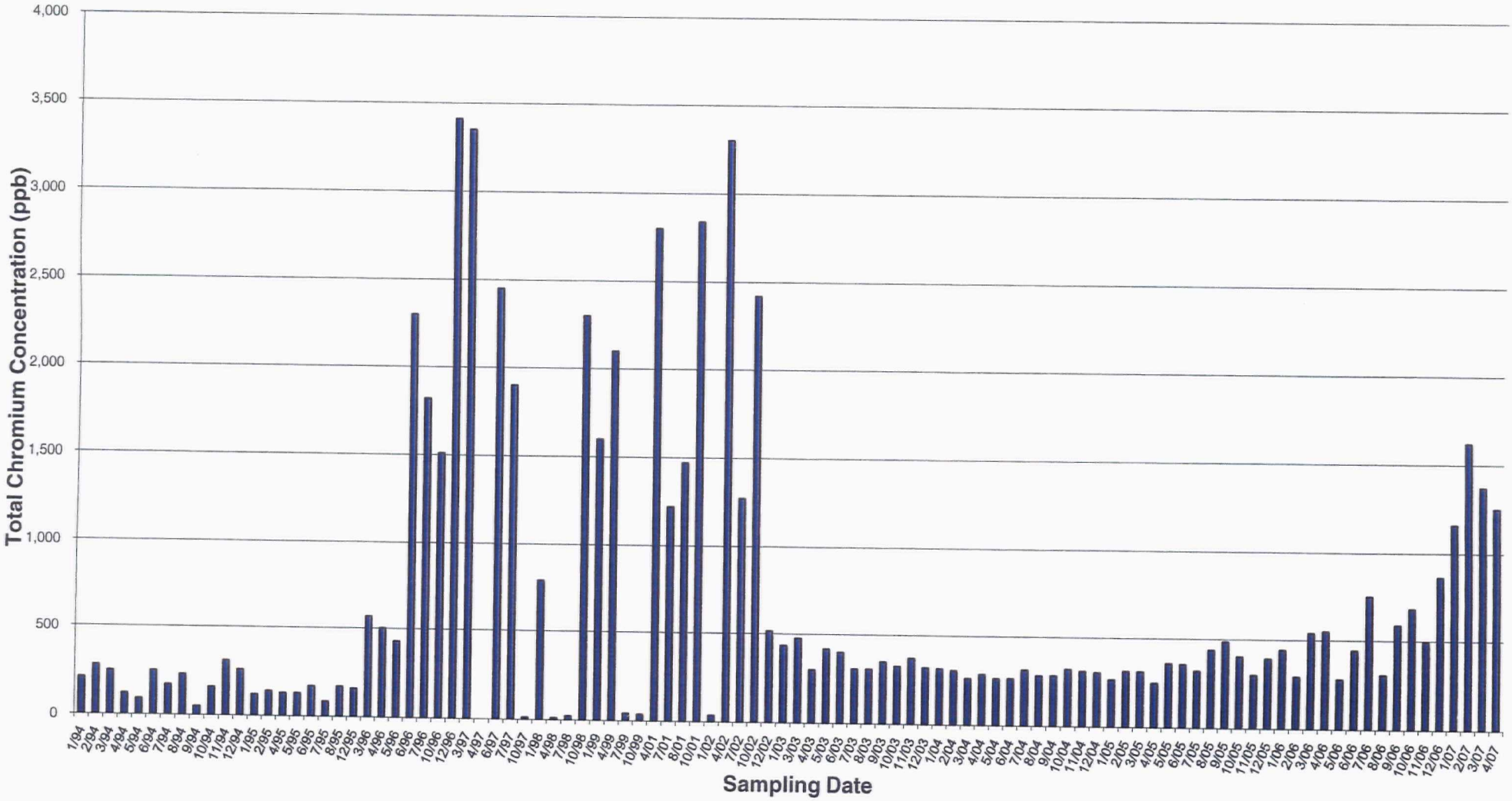


FIGURE 19
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATIONS IN DEEP MONITORING WELL SC-28D
APRIL 2001 - APRIL 2007

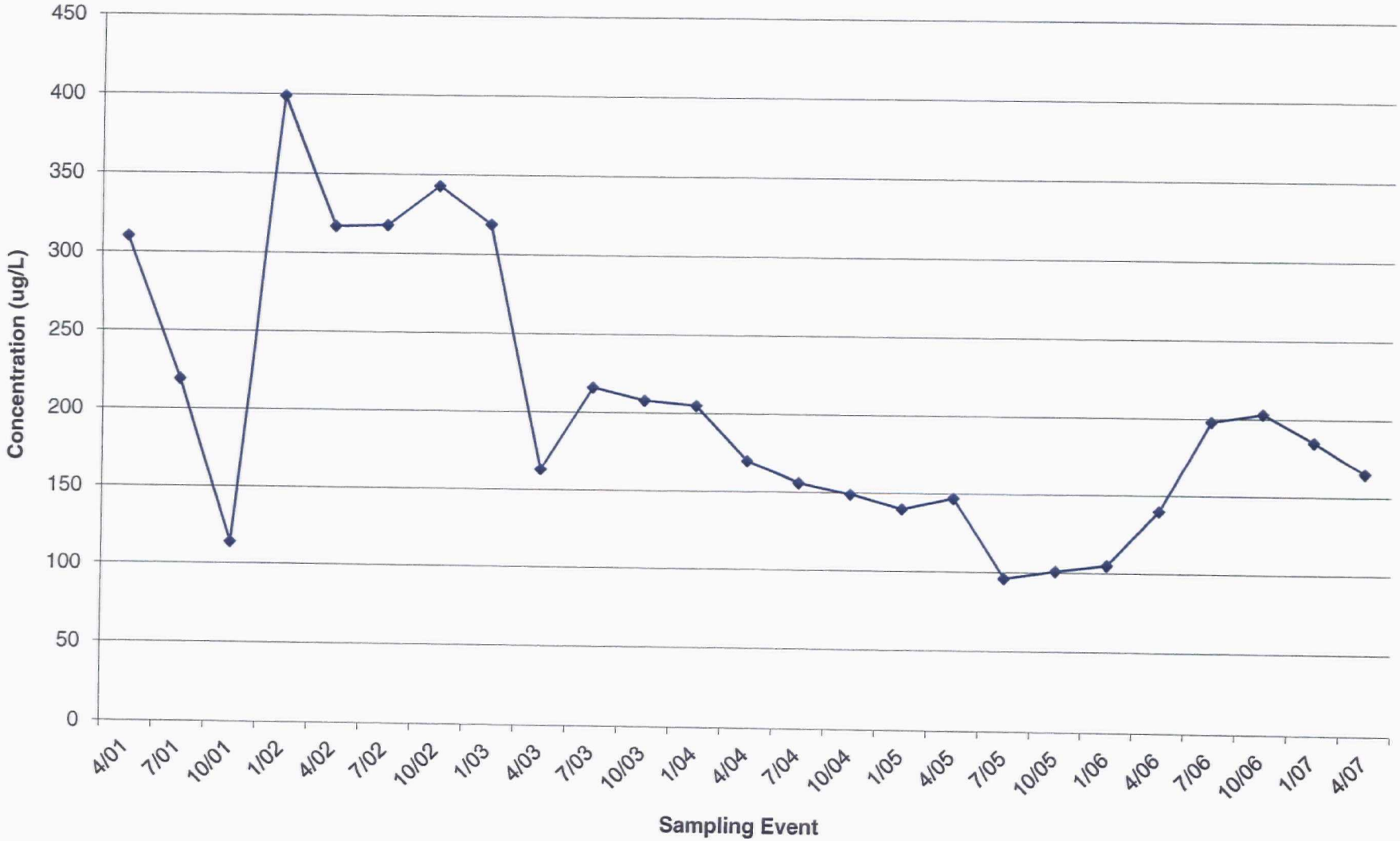
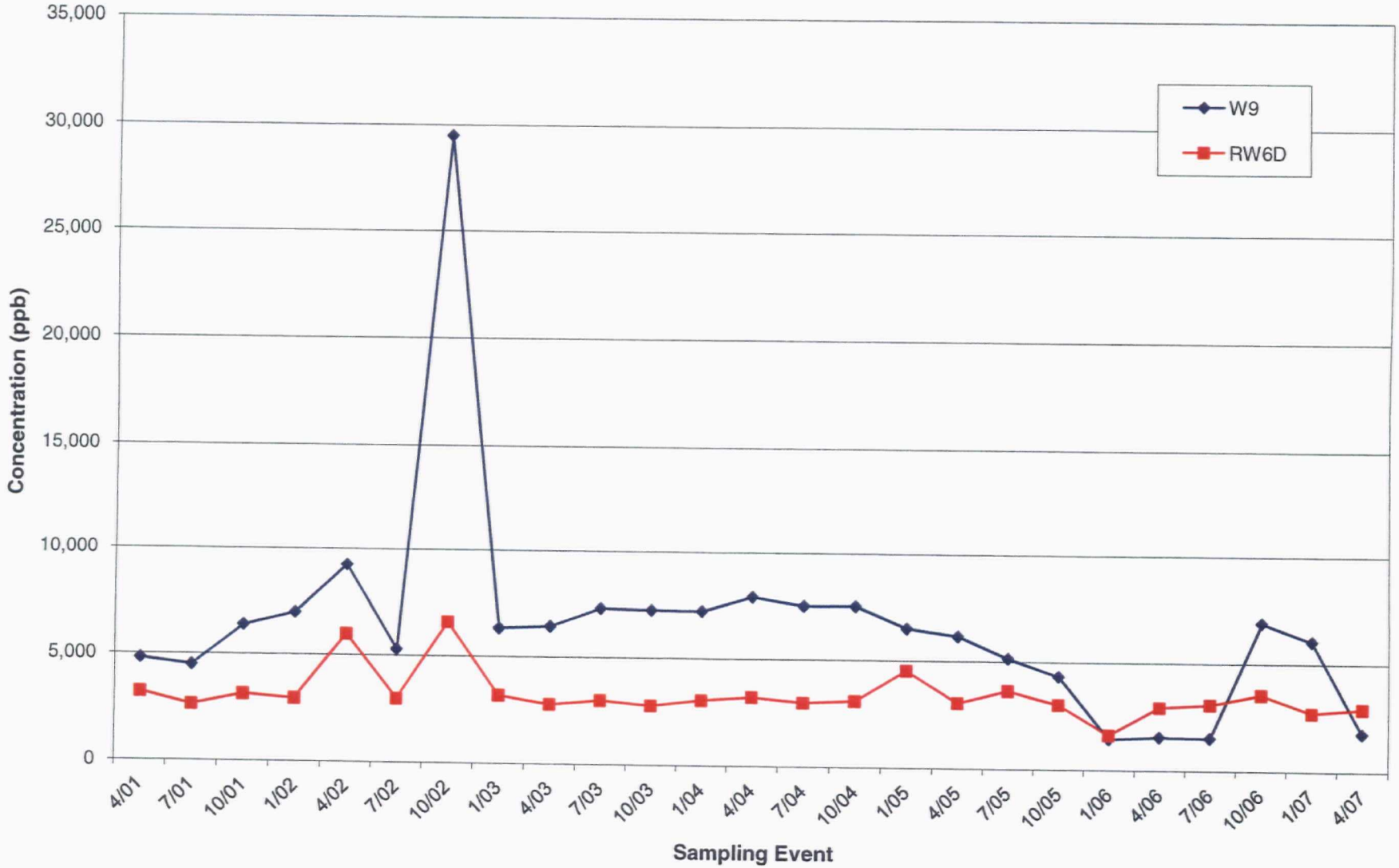


FIGURE 20
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TOTAL CHROMIUM CONCENTRATIONS IN DEEP EXTRACTION WELLS
APRIL 2001 - APRIL 2007



Note: Extraction well/treatment system shutdown during January 2006. Samples collected from residual water in sample tap piping.

APPENDIX A

Extraction Well Operation Data

Filter Press Waste Data

WELL LOG REPORT
February, 2007

Date		RIW2	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
02/01/07		0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/02/07		0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/03/07		0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/04/07		0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/05/07		117600	0	0	0	0	0	0	0	0	0	0	0	0	0
02/06/07		403200	280	280	280	280	280	280	280	280	280	280	280	280	280
02/07/07		331140	280	280	280	280	280	280	280	280	280	280	280	280	280
02/08/07		303600	253	253	253	253	253	253	253	253	253	253	253	253	253
02/09/07		166980	0	0	0	0	0	0	0	0	0	0	0	0	0
02/10/07		303600	253	253	253	253	253	253	253	253	253	253	253	253	253
02/11/07		258060	253	253	253	253	253	253	253	0	0	0	0	0	0
02/12/07		258600	253	253	253	253	0	0	253	253	0	0	0	0	0
02/13/07		365760	254	254	254	254	254	254	254	254	254	254	254	254	254
02/14/07		274320	254	0	0	0	0	0	0	254	254	254	254	254	254
02/15/07		60960	254	254	0	0	0	0	0	254	254	0	0	0	0
02/16/07		213360	0	0	0	0	0	0	0	0	0	0	254	254	254
02/17/07		289560	254	254	0	0	0	0	0	254	254	254	254	254	254
02/18/07		304800	0	0	254	254	254	254	254	254	254	0	0	254	254
02/19/07		213360	0	0	0	254	254	254	254	254	0	0	0	254	254
02/20/07		320040	0	0	0	254	254	254	254	254	254	254	254	254	254
02/21/07		320040	254	254	254	254	254	254	254	254	0	0	0	254	254
02/22/07		365760	254	254	254	254	254	254	254	254	254	254	254	254	254
02/23/07		365760	254	254	254	254	254	254	254	254	254	254	254	254	254
02/24/07		243840	254	254	254	254	254	254	254	254	0	0	0	0	0
02/25/07		365760	254	254	254	254	254	254	254	254	254	254	254	254	254
02/26/07		213360	254	254	254	254	254	254	254	254	254	254	0	0	0
02/27/07		260100	255	255	255	255	255	255	255	255	255	255	255	255	255
02/28/07		275400	255	255	255	255	255	255	255	255	255	255	255	255	255
Well Total		6,594,960													
System Total		9,371,880													
Average		163.57													

WELL LOG REPORT
February, 2007

Date	RIW2 1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
02/01/07	0	0	0	0	0	0	0	0	0	0	0	
02/02/07	0	0	0	0	0	0	0	0	0	0	0	
02/03/07	0	0	0	0	0	0	0	0	0	0	0	
02/04/07	0	0	0	0	0	0	0	0	0	0	0	
02/05/07	0	0	0	0	280	280	280	280	280	280	280	
02/06/07	280	280	280	280	280	280	280	280	280	280	280	
02/07/07	280	280	280	280	0	0	0	0	253	253	253	
02/08/07	253	253	253	253	253	253	0	0	0	0	253	
02/09/07	253	253	253	253	253	253	253	253	253	253	253	
02/10/07	253	253	253	253	253	253	0	0	0	0	253	
02/11/07	0	253	253	253	253	253	253	253	253	253	253	
02/12/07	253	254	254	254	254	254	254	254	254	253	254	
02/13/07	254	254	254	254	254	254	254	254	254	254	254	
02/14/07	254	254	254	254	254	254	254	254	254	254	254	
02/15/07	0	0	0	0	0	0	0	0	0	0	0	
02/16/07	254	254	254	254	254	254	254	254	254	254	254	
02/17/07	254	254	254	254	254	254	254	254	254	254	254	
02/18/07	254	254	254	254	254	254	254	254	254	254	254	
02/19/07	254	254	254	0	0	254	254	254	254	0	0	
02/20/07	254	254	254	254	254	254	254	254	254	254	254	
02/21/07	254	254	254	254	254	254	254	254	254	254	254	
02/22/07	254	254	254	254	254	254	254	254	254	254	254	
02/23/07	254	254	254	254	254	254	254	254	254	254	254	
02/24/07	0	0	0	254	254	254	254	254	254	254	254	
02/25/07	254	254	254	254	254	254	254	254	254	254	254	
02/26/07	0	0	0	254	254	254	0	0	0	0	254	
02/27/07	255	255	255	0	0	0	0	0	0	0	255	
02/28/07	255	255	255	255	0	0	0	0	255	0	0	
Well Total												
System Total												
Average												

WELL LOG REPORT
February, 2007

Date	RW6D	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
02/01/07	102120	59	58	59	58	58	158	158	159	58	58	59	59	58
02/02/07	52320	58	58	58	58	58	58	58	58	0	0	0	0	0
02/03/07	83220	58	58	58	58	58	58	57	58	59	58	58	57	57
02/04/07	83340	59	58	59	58	57	58	58	58	57	58	58	58	58
02/05/07	41760	58	58	58	58	58	57	58	58	58	59	58	58	0
02/06/07	6780	56	57	0	0	0	0	0	0	0	0	0	0	0
02/07/07	6900	0	0	0	0	0	0	0	0	0	0	0	0	0
02/08/07	5700	19	19	19	19	19	0	0	0	0	0	0	0	0
02/09/07	11820	0	0	0	0	0	0	0	0	0	0	0	0	0
02/10/07	39780	27	27	27	26	26	26	26	26	25	26	26	26	32
02/11/07	23220	28	30	28	28	28	27	27	0	0	0	0	0	0
02/12/07	21900	33	32	0	0	0	0	0	34	0	0	0	0	0
02/13/07	45600	33	33	32	32	32	32	32	32	33	32	32	32	32
02/14/07	50220	34	34	34	35	34	35	34	34	33	34	34	34	34
02/15/07	20040	37	38	37	37	37	37	37	37	37	0	0	0	0
02/16/07	13980	0	0	0	0	0	0	0	0	0	0	0	0	0
02/17/07	55020	38	40	38	38	39	39	40	39	37	37	38	38	38
02/18/07	22440	0	0	38	37	37	37	37	37	37	0	0	0	0
02/19/07	26340	0	0	0	38	37	36	36	36	0	0	0	36	36
02/20/07	42300	0	0	0	37	37	37	38	37	37	37	37	37	37
02/21/07	44520	39	37	37	37	37	37	37	37	0	0	0	39	37
02/22/07	51660	36	36	36	37	37	37	37	37	35	36	36	35	36
02/23/07	49920	36	35	35	35	35	35	35	35	34	34	34	35	34
02/24/07	44640	0	34	34	34	34	0	0	32	36	36	36	36	36
02/25/07	8580	36	0	36	35	36	0	0	0	0	0	0	0	0
02/26/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/27/07	19500	0	0	0	0	0	0	0	0	36	36	36	36	36
02/28/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Total	973,620													
System Total														
Average	24.15													

WELL LOG REPORT
February, 2007

	RW6D											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
02/01/07	59	59	59	59	58	58	58	59	58	58	58	
02/02/07	0	0	0	0	58	58	59	59	58	58	58	
02/03/07	57	57	57	58	59	58	57	58	57	59	58	
02/04/07	58	58	58	58	57	58	58	58	57	57	58	
02/05/07	0	0	0	0	0	0	0	0	0	0	0	
02/06/07	0	0	0	0	0	0	0	0	0	0	0	
02/07/07	0	0	0	0	0	0	0	55	20	20	20	
02/08/07	0	0	0	0	0	0	0	0	0	0	0	
02/09/07	0	0	0	0	30	29	29	28	27	26	28	
02/10/07	30	30	29	29	29	28	29	28	28	29	28	
02/11/07	0	32	31	31	0	0	0	0	34	31	32	
02/12/07	0	0	0	35	33	33	33	33	33	33	33	
02/13/07	32	0	35	34	34	35	35	34	34	34	34	
02/14/07	34	35	35	35	35	37	36	36	37	37	37	
02/15/07	0	0	0	0	0	0	0	0	0	0	0	
02/16/07	39	0	0	0	39	38	38	37	0	0	42	
02/17/07	38	38	38	38	38	37	38	38	39	38	38	
02/18/07	0	0	0	38	38	38	0	0	0	0	0	
02/19/07	36	0	0	0	0	0	37	37	37	37	0	
02/20/07	37	37	37	37	38	37	37	0	0	37	37	
02/21/07	37	37	37	37	36	0	37	37	37	37	36	
02/22/07	36	35	35	35	37	35	35	36	36	35	35	
02/23/07	34	36	36	36	34	34	34	34	34	34	34	
02/24/07	36	36	36	36	36	36	36	36	36	36	36	
02/25/07	0	0	0	0	0	0	0	0	0	0	0	
02/26/07	0	0	0	0	0	0	0	0	0	0	0	
02/27/07	36	36	36	0	0	0	37	0	0	0	0	
02/28/07	0	0	0	0	0	0	0	0	0	0	0	
Well Total												
System Total												
Average												

WELL LOG REPORT
February, 2007

Date	RW6S	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
02/01/07	76500	53	53	53	53	53	52	53	53	53	53	54	53	53
02/02/07	48120	53	53	53	54	54	53	54	54	0	0	0	0	0
02/03/07	76380	53	53	54	54	54	53	53	53	53	53	53	53	53
02/04/07	76200	54	53	53	53	53	53	53	53	53	53	53	53	53
02/05/07	40920	53	53	53	52	53	52	53	52	53	52	52	52	0
02/06/07	1860	0	0	31	0	0	0	0	0	0	0	0	0	0
02/07/07	15660	0	0	0	0	0	0	0	0	0	0	0	0	0
02/08/07	74400	51	52	51	51	51	52	51	51	51	52	51	52	52
02/09/07	34380	0	0	0	0	0	0	0	0	0	0	0	0	0
02/10/07	74340	52	51	52	51	52	51	52	51	51	51	52	52	52
02/11/07	46500	52	51	51	51	51	51	0	0	0	0	0	0	0
02/12/07	49920	52	52	51	52	0	0	52	0	0	0	0	0	0
02/13/07	74820	52	52	52	52	52	52	52	52	52	52	52	52	52
02/14/07	75120	52	52	52	52	53	53	53	52	52	52	53	52	52
02/15/07	24660	51	51	51	52	51	52	51	52	0	0	0	0	0
02/16/07	24780	0	0	0	0	0	0	0	0	0	0	51	51	52
02/17/07	6240	53	51	0	0	0	0	0	0	0	0	0	0	0
02/18/07	9360	0	0	0	0	0	0	0	0	0	0	0	0	0
02/19/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/20/07	9480	0	0	0	0	52	0	0	0	0	0	0	0	0
02/21/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/22/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/23/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/25/07	3240	0	54	0	0	0	0	0	0	0	0	0	0	0
02/26/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/27/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/28/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Total	842,880													
System Total														
Average	20.90													

WELL LOG REPORT
February, 2007

	RW6S										
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm
02/01/07	53	53	53	54	53	53	54	53	53	54	53
02/02/07	0	0	0	0	53	54	53	53	54	54	53
02/03/07	52	52	53	53	53	53	53	53	53	53	53
02/04/07	53	53	53	53	53	52	52	53	52	53	53
02/05/07	0	0	0	0	52	0	0	0	0	0	0
02/06/07	0	0	0	0	0	0	0	0	0	0	0
02/07/07	0	0	0	0	0	0	53	52	52	52	52
02/08/07	52	52	53	52	53	51	51	52	52	52	52
02/09/07	52	52	52	52	52	52	52	52	52	52	53
02/10/07	52	51	52	52	52	52	51	51	52	52	52
02/11/07	0	52	52	52	52	52	52	52	52	0	52
02/12/07	52	52	53	52	52	52	52	52	52	52	52
02/13/07	52	52	52	52	52	52	52	51	52	52	52
02/14/07	52	51	52	52	52	52	52	52	52	52	53
02/15/07	0	0	0	0	0	0	0	0	0	0	0
02/16/07	0	52	52	51	0	0	0	0	52	52	0
02/17/07	0	0	0	0	0	0	0	0	0	0	0
02/18/07	0	0	0	0	0	0	52	52	52	0	0
02/19/07	0	0	0	0	0	0	0	0	0	0	0
02/20/07	0	0	0	0	0	0	0	53	53	0	0
02/21/07	0	0	0	0	0	0	0	0	0	0	0
02/22/07	0	0	0	0	0	0	0	0	0	0	0
02/23/07	0	0	0	0	0	0	0	0	0	0	0
02/24/07	0	0	0	0	0	0	0	0	0	0	0
02/25/07	0	0	0	0	0	0	0	0	0	0	0
02/26/07	0	0	0	0	0	0	0	0	0	0	0
02/27/07	0	0	0	0	0	0	0	0	0	0	0
02/28/07	0	0	0	0	0	0	0	0	0	0	0
Well Total											
System Total											
Average											

WELL LOG REPORT
February, 2007

	LAYNE												
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
02/01/07	44640	31	31	31	31	31	31	31	31	31	31	31	31	31
02/02/07	28440	31	32	32	32	31	31	32	32	0	0	0	0	0
02/03/07	44760	32	31	32	31	31	31	31	31	31	31	31	31	31
02/04/07	43980	31	31	31	31	31	31	31	31	30	30	30	30	31
02/05/07	32580	30	31	31	30	30	30	30	30	30	30	30	30	0
02/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/07/07	7800	0	0	0	0	0	0	0	0	0	0	0	0	0
02/08/07	28320	0	0	0	0	0	27	26	0	26	26	26	26	26
02/09/07	17340	0	0	0	0	0	0	0	0	0	0	0	0	0
02/10/07	38400	27	26	27	27	27	27	27	27	27	27	27	27	27
02/11/07	28020	26	27	27	27	26	26	26	0	0	0	0	0	0
02/12/07	29640	28	28	28	28	0	0	29	29	0	0	0	0	0
02/13/07	40380	30	29	30	29	29	29	30	29	29	29	0	30	29
02/14/07	42060	29	29	29	29	29	29	29	29	30	29	29	30	29
02/15/07	15540	29	29	29	28	29	29	28	29	29	0	0	0	0
02/16/07	13680	0	0	0	0	0	0	0	0	0	0	0	0	0
02/17/07	39900	28	0	30	28	28	29	29	29	29	28	29	29	29
02/18/07	21300	0	0	30	29	29	29	29	29	30	0	0	0	0
02/19/07	23460	0	0	0	0	30	29	29	30	0	0	0	30	30
02/20/07	32100	0	0	0	31	31	31	31	31	32	31	32	31	31
02/21/07	33840	33	31	31	32	32	31	31	31	0	0	0	33	31
02/22/07	35880	31	31	31	31	31	32	32	31	31	31	32	32	31
02/23/07	28200	0	0	0	0	31	31	0	0	31	31	31	31	31
02/24/07	42900	0	31	31	31	31	31	31	31	32	31	30	31	31
02/25/07	34500	0	0	0	0	0	33	33	33	32	32	32	0	32
02/26/07	34200	32	32	32	31	31	32	32	31	32	32	0	0	0
02/27/07	22680	31	31	31	31	32	0	32	31	0	0	0	0	0
02/28/07	26400	31	31	31	32	32	32	31	31	0	0	32	31	32
Well Total	830,940													
System Total														
Average	20.61													

WELL LOG REPORT
February, 2007

	LAYNE											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
02/01/07	31	31	31	31	31	31	31	31	31	31	31	
02/02/07	0	0	0	0	32	31	32	32	31	32	31	
02/03/07	31	31	31	31	31	31	31	31	31	31	31	
02/04/07	31	32	30	30	31	30	30	30	30	30	30	
02/05/07	0	0	0	0	0	31	30	30	30	30	30	
02/06/07	0	0	0	0	0	0	0	0	0	0	0	
02/07/07	0	0	0	0	26	25	25	27	27	0	0	
02/08/07	26	26	26	26	27	27	26	26	27	26	26	
02/09/07	26	26	26	26	26	26	27	26	27	26	27	
02/10/07	27	27	26	26	27	26	26	26	26	26	27	
02/11/07	0	28	28	28	28	29	28	29	28	28	28	
02/12/07	30	29	30	30	29	30	30	29	29	29	29	
02/13/07	29	30	29	29	29	30	29	29	28	30	29	
02/14/07	30	29	29	30	29	29	28	30	29	29	30	
02/15/07	0	0	0	0	0	0	0	0	0	0	0	
02/16/07	0	0	0	29	29	29	29	28	28	28	28	
02/17/07	29	29	29	30	29	29	29	29	29	29	29	
02/18/07	0	0	0	30	30	30	0	0	0	30	30	
02/19/07	30	32	30	0	0	0	31	30	30	30	0	
02/20/07	32	32	32	31	32	32	0	0	0	0	32	
02/21/07	31	31	31	30	30	32	32	0	0	0	31	
02/22/07	31	31	32	32	33	32	0	0	0	0	0	
02/23/07	31	31	31	31	0	33	32	32	0	0	32	
02/24/07	31	31	32	32	31	31	31	31	31	31	31	
02/25/07	31	32	32	32	32	32	31	31	32	31	32	
02/26/07	0	0	0	31	32	32	31	32	31	32	32	
02/27/07	0	0	0	0	0	0	32	32	31	32	32	
02/28/07	32	31	31	0	0	0	0	0	0	0	0	
Well Total												
System Total												
Average												

WELL LOG REPORT
February, 2007

Date	W9	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
02/01/07	24480	17	17	17	17	17	17	17	17	17	17	17	17	17
02/02/07	15300	17	17	17	17	17	17	17	17	0	0	0	0	0
02/03/07	24480	17	17	17	17	17	17	17	17	17	17	17	17	17
02/04/07	24480	17	17	17	17	17	17	17	17	17	17	17	17	17
02/05/07	10200	17	17	17	17	17	17	17	17	17	17	0	0	0
02/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/07/07	4080	0	0	0	0	0	0	0	0	0	0	0	0	0
02/08/07	7140	0	0	0	0	0	0	0	0	0	0	0	0	0
02/09/07	9180	0	0	0	0	0	0	0	0	0	0	0	0	0
02/10/07	1020	17	0	0	0	0	0	0	0	0	0	0	0	0
02/11/07	7080	0	0	0	0	0	0	0	0	0	0	0	0	0
02/12/07	2040	0	0	0	0	0	0	0	0	0	0	0	0	0
02/13/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/14/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/15/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/16/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/17/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/18/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/19/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/20/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/21/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/22/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/23/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/25/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/26/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/27/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/28/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Total	129,480													
System Total														
Average	3.21													

WELL LOG REPORT
February, 2007

	W9										
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm
02/01/07	17	17	17	17	17	17	17	17	17	17	17
02/02/07	0	0	0	0	17	17	17	17	17	17	17
02/03/07	17	17	17	17	17	17	17	17	17	17	17
02/04/07	17	17	17	17	17	17	17	17	17	17	17
02/05/07	0	0	0	0	0	0	0	0	0	0	0
02/06/07	0	0	0	0	0	0	0	0	0	0	0
02/07/07	0	0	0	0	0	17	17	17	17	0	0
02/08/07	0	0	0	0	17	17	17	17	17	17	17
02/09/07	0	0	17	17	17	17	17	17	17	17	17
02/10/07	0	0	0	0	0	0	0	0	0	0	0
02/11/07	0	17	17	17	17	17	16	17	0	0	0
02/12/07	17	17	0	0	0	0	0	0	0	0	0
02/13/07	0	0	0	0	0	0	0	0	0	0	0
02/14/07	0	0	0	0	0	0	0	0	0	0	0
02/15/07	0	0	0	0	0	0	0	0	0	0	0
02/16/07	0	0	0	0	0	0	0	0	0	0	0
02/17/07	0	0	0	0	0	0	0	0	0	0	0
02/18/07	0	0	0	0	0	0	0	0	0	0	0
02/19/07	0	0	0	0	0	0	0	0	0	0	0
02/20/07	0	0	0	0	0	0	0	0	0	0	0
02/21/07	0	0	0	0	0	0	0	0	0	0	0
02/22/07	0	0	0	0	0	0	0	0	0	0	0
02/23/07	0	0	0	0	0	0	0	0	0	0	0
02/24/07	0	0	0	0	0	0	0	0	0	0	0
02/25/07	0	0	0	0	0	0	0	0	0	0	0
02/26/07	0	0	0	0	0	0	0	0	0	0	0
02/27/07	0	0	0	0	0	0	0	0	0	0	0
02/28/07	0	0	0	0	0	0	0	0	0	0	0
Well Total											
System Total											
Average											

WELL LOG REPORT
March, 2007

		RIW2												
Date			12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
03/01/07		121920	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/07		367380	254	254	254	254	254	254	254	254	255	255	255	255	255
03/03/07		367680	254	254	254	254	254	254	254	254	256	256	256	256	256
03/04/07		336240	254	0	254	254	254	254	254	0	255	255	255	255	255
03/05/07		229500	0	0	0	0	0	0	0	0	0	255	255	255	255
03/06/07		367200	255	255	255	255	255	255	255	255	255	255	255	255	255
03/07/07		290700	255	255	255	255	255	255	255	255	255	255	255	255	0
03/08/07		91800	255	0	0	0	0	0	0	255	255	255	255	255	0
03/09/07		140100	0	0	0	0	0	0	0	255	0	0	0	160	160
03/10/07		168600	160	160	160	160	160	160	160	160	160	160	160	160	160
03/11/07		165000	125	125	125	125	125	125	125	125	125	125	125	125	125
03/12/07		127500	125	125	125	125	125	125	125	125	125	0	0	0	0
03/13/07		180000	125	125	125	125	125	125	125	125	125	125	125	125	125
03/14/07		180000	125	125	125	125	125	125	125	125	125	125	125	125	125
03/15/07		180000	125	125	125	125	125	125	125	125	125	125	125	125	125
03/16/07		176400	125	125	125	125	125	125	125	125	125	125	125	125	125
03/17/07		162720	113	113	113	113	113	113	113	113	113	113	113	113	113
03/18/07		161400	113	113	113	113	113	113	113	113	113	111	111	111	111
03/19/07		88140	113	113	113	113	113	113	113	113	113	113	0	0	0
03/20/07		167820	113	113	113	113	113	113	113	118	118	118	118	118	118
03/21/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
03/22/07		170220	118	118	118	118	118	118	118	118	118	119	119	119	119
03/23/07		170280	120	118	118	120	120	118	118	118	118	118	118	118	118
03/24/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
03/25/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
03/26/07		135540	118	118	118	118	118	118	118	118	118	118	0	0	0
03/27/07		172500	118	118	118	118	118	118	118	118	118	120	120	120	120
03/28/07		173340	121	121	121	121	121	121	121	121	121	120	120	120	120
03/29/07		172200	119	119	119	119	119	119	119	119	119	120	120	120	120
03/30/07		171840	120	120	118	118	120	118	118	118	120	118	118	120	118
03/31/07		172320	120	120	120	120	120	120	120	120	118	120	120	118	118
Well Total		5,918,100													
System Total		10,365,180													
Average		132.57													

WELL LOG REPORT
March, 2007

	RIW2											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
03/01/07	0	0	0	254	254	254	254	254	254	254	254	
03/02/07	256	256	256	256	256	256	256	256	256	256	256	
03/03/07	256	256	256	256	256	256	256	256	256	256	256	
03/04/07	255	255	255	255	255	255	255	255	255	255	255	
03/05/07	255	255	255	255	255	255	255	255	255	255	255	
03/06/07	255	255	255	255	255	255	255	255	255	255	255	
03/07/07	0	255	255	255	255	255	255	0	0	255	0	
03/08/07	0	0	0	0	0	0	0	0	0	0	0	
03/09/07	160	160	160	160	160	160	160	160	160	160	160	
03/10/07	160	160	160	0	0	0	0	0	0	125	125	
03/11/07	125	125	125	125	0	0	125	125	125	125	125	
03/12/07	0	0	0	125	125	125	125	125	125	125	125	
03/13/07	125	125	125	125	125	125	125	125	125	125	125	
03/14/07	125	125	125	125	125	125	125	125	125	125	125	
03/15/07	125	125	125	125	125	125	125	125	125	125	125	
03/16/07	125	125	125	125	125	125	113	113	113	113	113	
03/17/07	113	113	113	113	113	113	113	113	113	113	113	
03/18/07	111	111	111	111	111	111	111	113	113	113	113	
03/19/07	0	0	0	0	0	0	0	0	113	113	113	
03/20/07	118	118	118	118	118	118	118	118	118	118	118	
03/21/07	118	118	118	118	118	118	118	118	118	118	118	
03/22/07	119	118	118	118	118	118	118	118	118	118	118	
03/23/07	118	118	118	118	118	118	118	118	118	118	118	
03/24/07	118	118	118	118	118	118	118	118	118	118	118	
03/25/07	118	118	118	118	118	118	118	118	118	118	118	
03/26/07	0	0	118	118	118	120	121	121	121	121	121	
03/27/07	122	122	122	120	121	121	121	121	121	121	121	
03/28/07	120	120	120	120	120	120	120	120	120	120	120	
03/29/07	119	120	120	120	120	120	120	120	120	120	120	
03/30/07	120	120	120	120	120	120	120	120	120	120	120	
03/31/07	120	120	118	120	120	120	120	120	120	120	120	
Well Total												
System Total												
Average												

WELL LOG REPORT
March, 2007

Date	RW6D	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
03/01/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/03/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/04/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/05/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/07/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/08/07	29640	0	0	0	0	0	0	0	0	0	0	0	0	0
03/09/07	44460	0	0	0	0	0	0	0	0	0	0	0	57	57
03/10/07	61560	57	56	57	57	56	57	57	56	57	57	57	57	57
03/11/07	75600	57	57	57	57	58	58	57	57	57	57	57	56	57
03/12/07	58320	58	57	57	57	57	57	57	57	57	0	0	0	0
03/13/07	82620	58	58	57	57	57	57	58	57	58	57	57	57	58
03/14/07	82560	57	57	57	57	57	57	57	58	58	58	58	57	58
03/15/07	81960	57	57	57	57	57	58	57	57	57	57	57	57	57
03/16/07	81420	56	56	57	57	57	57	57	57	57	57	56	56	56
03/17/07	80880	57	57	56	57	57	56	56	56	56	56	56	56	56
03/18/07	81120	56	56	56	56	57	57	57	57	57	56	56	56	56
03/19/07	43980	57	57	56	57	57	58	56	56	55	56	0	0	0
03/20/07	74880	56	57	57	57	0	0	57	56	57	57	57	57	57
03/21/07	80760	57	56	56	56	56	56	56	56	56	56	56	56	56
03/22/07	80580	56	56	56	56	56	55	56	56	56	56	56	56	56
03/23/07	80520	56	56	56	56	56	55	56	56	55	56	56	56	56
03/24/07	79380	55	55	55	55	55	55	55	55	55	56	56	56	55
03/25/07	79260	55	55	55	55	55	55	55	56	55	55	55	55	55
03/26/07	62520	54	54	55	55	55	55	55	54	55	55	0	0	0
03/27/07	79020	54	53	54	54	55	55	54	54	55	55	55	55	55
03/28/07	79860	58	57	57	56	56	56	56	55	55	55	55	55	55
03/29/07	78720	55	55	55	55	55	55	54	55	54	54	54	54	54
03/30/07	78540	55	55	54	54	55	55	54	54	55	54	54	54	54
03/31/07	78480	54	55	55	55	55	55	55	54	55	54	54	54	54
Well Total	1,736,640													
System Total														
Average	38.90													

WELL LOG REPORT
March, 2007

	RW6D											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
03/01/07	0	0	0	0	0	0	0	0	0	0	0	
03/02/07	0	0	0	0	0	0	0	0	0	0	0	
03/03/07	0	0	0	0	0	0	0	0	0	0	0	
03/04/07	0	0	0	0	0	0	0	0	0	0	0	
03/05/07	0	0	0	0	0	0	0	0	0	0	0	
03/06/07	0	0	0	0	0	0	0	0	0	0	0	
03/07/07	0	0	0	0	0	0	0	0	0	0	0	
03/08/07	0	34	34	54	54	53	53	53	53	53	53	
03/09/07	57	57	57	57	57	57	57	57	57	57	57	
03/10/07	57	57	58	0	0	0	0	0	0	58	58	
03/11/07	57	57	57	57	0	0	58	58	58	58	58	
03/12/07	0	0	0	57	57	57	58	58	57	57	57	
03/13/07	58	57	57	57	57	58	58	57	57	58	57	
03/14/07	57	57	58	58	58	57	57	57	57	57	57	
03/15/07	57	57	57	57	57	57	57	57	56	56	56	
03/16/07	56	56	56	56	57	57	56	57	56	57	57	
03/17/07	56	56	56	56	56	56	56	56	56	56	56	
03/18/07	56	56	56	56	56	56	56	57	57	56	57	
03/19/07	0	0	0	0	0	0	0	0	56	56	56	
03/20/07	57	57	57	57	57	57	57	56	56	56	56	
03/21/07	56	56	56	56	56	56	56	57	56	56	56	
03/22/07	56	56	56	56	56	56	56	56	56	56	56	
03/23/07	56	56	56	56	56	56	56	56	56	56	56	
03/24/07	55	55	55	55	55	55	55	55	55	55	55	
03/25/07	55	55	55	55	55	55	55	55	55	55	55	
03/26/07	0	0	55	55	55	55	55	55	55	55	55	
03/27/07	55	55	56	55	55	56	56	55	55	55	56	
03/28/07	55	55	55	55	55	55	55	55	55	55	55	
03/29/07	54	55	55	55	55	55	55	55	55	54	55	
03/30/07	55	55	54	55	55	55	55	55	54	55	54	
03/31/07	54	54	54	55	55	55	55	55	54	54	54	
Well Total												
System Total												
Average												

WELL LOG REPORT
March, 2007

Date	RW6S	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
03/01/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/03/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/04/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/05/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/07/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/08/07	32100	0	0	0	0	0	0	0	0	0	0	0	0	0
03/09/07	41520	0	0	0	0	0	0	0	0	0	0	0	53	53
03/10/07	57420	53	53	53	53	53	53	53	53	52	53	53	53	54
03/11/07	71040	54	54	54	54	54	54	54	54	53	53	53	54	53
03/12/07	54900	54	54	54	53	53	54	54	54	53	0	0	0	0
03/13/07	77520	54	54	54	54	53	54	54	53	54	54	53	53	53
03/14/07	78120	54	54	54	54	54	54	54	54	54	54	54	54	54
03/15/07	77940	54	54	54	54	54	54	54	54	54	54	54	54	54
03/16/07	77100	53	54	54	54	54	54	54	54	54	54	54	54	53
03/17/07	76320	53	53	53	53	53	53	53	53	53	53	53	53	53
03/18/07	0	53	53	53	53	53	53	53	53	53	53	53	53	53
03/19/07	35220	0	54	53	0	53	53	53	53	53	53	0	0	0
03/20/07	71340	54	54	54	54	0	0	54	54	54	54	54	54	54
03/21/07	77640	54	54	54	54	54	54	54	53	54	54	54	53	54
03/22/07	78060	54	54	54	54	54	54	54	54	54	54	54	54	54
03/23/07	78660	54	55	54	55	55	55	54	54	55	55	55	54	54
03/24/07	77760	54	54	54	54	54	54	54	54	54	54	54	54	54
03/25/07	77880	54	54	54	54	54	54	54	54	54	54	54	54	54
03/26/07	58320	54	54	54	54	54	54	54	54	54	0	0	0	0
03/27/07	78360	54	54	54	54	54	54	54	54	54	54	54	54	54
03/28/07	78300	55	55	54	54	55	54	54	54	54	54	54	54	54
03/29/07	78240	54	54	54	54	54	55	55	54	55	54	53	54	54
03/30/07	77880	54	54	54	54	54	54	54	54	54	54	54	54	54
03/31/07	77880	54	54	54	54	54	54	54	54	54	54	54	54	54
Well Total	1,589,520													
System Total														
Average	37.32													

WELL LOG REPORT
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	RW6S											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
03/01/07	0	0	0	0	0	0	0	0	0	0	0	
03/02/07	0	0	0	0	0	0	0	0	0	0	0	
03/03/07	0	0	0	0	0	0	0	0	0	0	0	
03/04/07	0	0	0	0	0	0	0	0	0	0	0	
03/05/07	0	0	0	0	0	0	0	0	0	0	0	
03/06/07	0	0	0	0	0	0	0	0	0	0	0	
03/07/07	0	0	0	0	0	0	0	0	0	0	0	
03/08/07	0	54	54	54	53	53	54	53	53	53	54	
03/09/07	53	54	53	53	54	53	53	53	53	54	53	
03/10/07	53	53	54	0	0	0	0	0	0	54	54	
03/11/07	54	54	54	54	0	0	54	54	54	54	54	
03/12/07	0	0	0	54	54	54	54	54	54	54	54	
03/13/07	53	53	55	54	54	55	54	55	54	54	54	
03/14/07	54	54	55	55	55	55	55	55	54	54	54	
03/15/07	55	55	55	55	54	54	54	54	54	53	54	
03/16/07	53	53	54	53	53	53	53	53	53	54	53	
03/17/07	53	53	53	53	53	53	53	53	53	53	53	
03/18/07	53	53	54	53	53	53	53	53	53	53	53	
03/19/07	0	0	0	0	0	0	0	0	54	54	54	
03/20/07	54	54	55	54	54	54	54	54	54	54	54	
03/21/07	54	54	54	54	54	54	54	54	54	54	54	
03/22/07	54	54	55	55	55	55	54	54	54	55	54	
03/23/07	55	55	55	55	55	55	54	54	55	54	55	
03/24/07	54	54	54	54	54	54	54	54	54	54	54	
03/25/07	54	54	54	54	54	54	54	54	55	54	55	
03/26/07	0	0	54	54	54	54	54	54	54	54	54	
03/27/07	55	55	55	55	55	55	55	54	55	55	55	
03/28/07	54	55	55	55	55	55	55	54	54	54	54	
03/29/07	54	54	54	55	55	55	55	55	55	54	54	
03/30/07	54	54	55	54	54	54	54	55	54	54	54	
03/31/07	54	54	54	54	54	55	55	54	54	54	54	
Well Total												
System Total												
Average												

WELL LOG REPORT
March, 2007

	LAYNE												
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
03/01/07	5820	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/07	36060	32	32	32	32	31	31	31	31	0	0	0	0	0
03/03/07	38340	32	32	32	32	31	31	32	32	0	0	0	32	32
03/04/07	28500	32	0	32	32	31	31	31	0	0	0	32	32	32
03/05/07	22980	0	0	0	0	0	0	0	0	0	32	32	32	32
03/06/07	21000	31	32	32	31	0	0	0	0	32	0	0	0	0
03/07/07	33780	31	32	32	32	32	31	31	31	31	31	31	31	0
03/08/07	17880	0	0	0	0	0	0	0	0	0	0	0	0	0
03/09/07	24240	0	0	0	0	0	0	0	0	0	0	0	32	31
03/10/07	36360	31	31	31	31	31	31	31	30	31	31	31	31	32
03/11/07	40020	32	32	30	31	32	32	32	0	32	32	31	31	32
03/12/07	32460	32	31	32	32	31	32	32	32	31	0	0	0	0
03/13/07	42060	32	32	31	33	32	31	32	32	32	31	0	31	32
03/14/07	42060	32	32	32	32	32	32	32	31	32	32	0	31	32
03/15/07	45540	32	32	32	32	32	32	32	32	31	31	31	31	31
03/16/07	44760	31	31	31	31	32	31	31	31	32	31	31	31	31
03/17/07	44940	31	31	31	31	31	32	31	31	31	32	32	31	31
03/18/07	39300	31	31	31	31	31	31	31	31	31	31	0	31	31
03/19/07	20640	31	0	31	31	31	32	31	31	0	31	0	0	0
03/20/07	38280	32	31	32	32	0	0	32	32	32	32	0	32	31
03/21/07	41820	32	32	32	32	32	31	31	31	31	32	0	31	31
03/22/07	39960	31	31	32	32	32	32	31	31	31	31	32	0	0
03/23/07	45960	32	32	32	32	32	32	32	32	32	32	32	32	32
03/24/07	42000	32	32	32	32	31	31	32	32	32	32	32	32	32
03/25/07	41760	31	32	32	31	32	32	32	32	31	32	32	32	31
03/26/07	22440	31	31	31	31	32	31	31	31	31	0	0	0	0
03/27/07	41760	31	31	31	32	32	32	32	31	31	31	31	32	31
03/28/07	45540	33	33	33	32	32	31	31	31	31	31	31	31	32
03/29/07	45420	32	32	31	32	32	32	32	32	31	31	31	31	31
03/30/07	39780	31	32	32	31	32	31	32	0	32	31	31	31	32
03/31/07	41400	31	32	0	31	31	32	0	32	31	31	31	31	31
Well Total	1,102,860													
System Total														
Average	24.71													

WELL LOG REPORT
March, 2007

	LAYNE											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
03/01/07	0	0	0	0	0	0	0	0	33	32	32	
03/02/07	32	32	32	32	32	31	31	32	32	32	31	
03/03/07	0	33	32	32	32	32	32	33	32	31	32	
03/04/07	0	0	32	32	32	32	31	0	31	0	0	
03/05/07	32	32	32	32	31	0	32	32	0	0	32	
03/06/07	0	0	0	32	0	32	32	32	0	32	32	
03/07/07	0	31	31	31	0	32	31	0	0	31	0	
03/08/07	0	29	29	29	30	30	30	31	30	30	30	
03/09/07	31	31	31	31	31	31	31	31	31	31	31	
03/10/07	32	32	31	0	0	0	0	0	0	54	54	
03/11/07	32	32	32	32	0	0	32	32	32	32	32	
03/12/07	0	0	0	32	32	32	32	32	32	32	32	
03/13/07	32	0	32	32	32	32	32	32	32	32	32	
03/14/07	32	0	32	32	32	32	32	32	32	32	31	
03/15/07	32	32	32	32	32	31	32	31	32	31	31	
03/16/07	31	31	31	31	31	31	31	31	31	31	31	
03/17/07	31	32	32	31	31	31	31	31	31	31	31	
03/18/07	32	0	32	31	31	0	31	31	31	32	32	
03/19/07	0	0	0	0	0	0	0	0	31	32	32	
03/20/07	32	32	32	32	0	32	32	32	32	32	32	
03/21/07	32	32	0	32	32	32	32	32	32	32	31	
03/22/07	0	32	32	32	32	32	32	32	32	32	32	
03/23/07	32	32	32	32	32	32	31	31	32	32	32	
03/24/07	31	32	32	32	32	0	31	32	32	0	32	
03/25/07	0	0	31	32	31	31	32	32	32	31	32	
03/26/07	0	0	0	0	0	0	0	32	31	31	0	
03/27/07	32	32	32	32	32	0	32	32	32	0	32	
03/28/07	31	32	31	32	32	32	31	32	31	31	32	
03/29/07	31	32	32	32	32	31	31	32	31	31	32	
03/30/07	31	32	32	32	32	32	0	0	31	32	31	
03/31/07	31	31	31	32	32	31	32	32	31	31	32	
Well Total												
System Total												
Average												

WELL LOG REPORT
March, 2007

	W9													
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
03/01/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/03/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/04/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/05/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/07/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/08/07	5520	0	0	0	0	0	0	0	0	0	0	0	0	0
03/09/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/10/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/11/07	4620	0	0	0	0	0	0	0	0	0	11	11	11	11
03/12/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/13/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/14/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/15/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/16/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/17/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/18/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/19/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/20/07	2640	11	11	11	11	0	0	0	0	0	0	0	0	0
03/21/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/22/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/23/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/25/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/26/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/27/07	5280	0	0	0	0	0	0	0	0	0	11	11	11	11
03/28/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/29/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/30/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/31/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Total	18,060													
System Total														
Average	0.40													

WELL LOG REPORT
March, 2007

	W9										
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm
03/01/07	0	0	0	0	0	0	0	0	0	0	0
03/02/07	0	0	0	0	0	0	0	0	0	0	0
03/03/07	0	0	0	0	0	0	0	0	0	0	0
03/04/07	0	0	0	0	0	0	0	0	0	0	0
03/05/07	0	0	0	0	0	0	0	0	0	0	0
03/06/07	0	0	0	0	0	0	0	0	0	0	0
03/07/07	0	0	0	0	0	0	0	0	0	0	0
03/08/07	0	0	0	12	12	11	11	11	12	12	11
03/09/07	0	0	0	0	0	0	0	0	0	0	0
03/10/07	0	0	0	0	0	0	0	0	0	0	0
03/11/07	11	11	11	0	0	0	0	0	0	0	0
03/12/07	0	0	0	0	0	0	0	0	0	0	0
03/13/07	0	0	0	0	0	0	0	0	0	0	0
03/14/07	0	0	0	0	0	0	0	0	0	0	0
03/15/07	0	0	0	0	0	0	0	0	0	0	0
03/16/07	0	0	0	0	0	0	0	0	0	0	0
03/17/07	0	0	0	0	0	0	0	0	0	0	0
03/18/07	0	0	0	0	0	0	0	0	0	0	0
03/19/07	0	0	0	0	0	0	0	0	0	0	0
03/20/07	0	0	0	0	0	0	0	0	0	0	0
03/21/07	0	0	0	0	0	0	0	0	0	0	0
03/22/07	0	0	0	0	0	0	0	0	0	0	0
03/23/07	0	0	0	0	0	0	0	0	0	0	0
03/24/07	0	0	0	0	0	0	0	0	0	0	0
03/25/07	0	0	0	0	0	0	0	0	0	0	0
03/26/07	0	0	0	0	0	0	0	0	0	0	0
03/27/07	11	11	11	11	0	0	0	0	0	0	0
03/28/07	0	0	0	0	0	0	0	0	0	0	0
03/29/07	0	0	0	0	0	0	0	0	0	0	0
03/30/07	0	0	0	0	0	0	0	0	0	0	0
03/31/07	0	0	0	0	0	0	0	0	0	0	0
Well Total											
System Total											
Average											

WELL LOG REPORT
April, 2007

Date		RIW2	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
04/01/07		172800	120	120	120	120	120	120	120	120	120	120	120	120	120
04/02/07		172800	120	120	120	120	120	120	120	120	120	120	120	120	120
04/03/07		172800	120	120	120	120	120	120	120	120	120	120	120	120	120
04/04/07		172320	120	120	120	120	120	120	120	120	120	120	120	120	120
04/05/07		172080	120	120	120	118	118	120	120	120	120	120	120	120	120
04/06/07		170160	120	120	118	118	118	118	118	118	118	118	118	118	118
04/07/07		170160	118	120	118	118	120	118	118	118	118	118	118	118	118
04/08/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
04/09/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
04/10/07		169920	118	118	118	118	118	118	118	118	118	118	118	118	118
04/11/07		171360	118	120	120	118	118	118	118	118	118	118	118	118	118
04/12/07		170880	118	118	120	118	118	120	118	118	118	118	118	118	118
04/13/07		170400	118	118	118	118	118	118	118	118	118	118	118	118	118
04/14/07		171360	118	118	118	118	118	118	118	118	118	118	118	120	120
04/15/07		172440	120	120	120	120	120	120	120	120	120	118	118	120	118
04/16/07		116520	120	120	120	120	120	120	120	120	123	0	0	0	0
04/17/07		102600	123	123	123	123	123	123	123	123	0	0	0	0	0
04/18/07		175860	122	122	122	122	122	122	122	122	122	122	122	122	122
04/19/07		169620	123	121	121	121	123	121	121	123	123	123	123	123	12
04/20/07		176460	123	123	123	121	123	121	121	121	123	122	123	122	123
04/21/07		177180	123	123	123	123	123	123	123	123	123	123	123	123	123
04/22/07		177660	123	123	123	123	123	123	123	123	123	123	123	123	123
04/23/07		178620	123	123	123	123	123	132	123	123	123	123	123	132	123
04/24/07		29520	123	123	123	123	0	0	0	0	0	0	0	0	0
04/25/07		51540	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/07		174720	123	123	123	121	121	123	121	121	121	121	121	121	121
04/27/07		174240	121	121	121	121	121	121	121	121	121	121	121	121	121
04/28/07		174480	121	121	123	121	121	121	121	121	121	121	121	121	121
04/29/07		190140	121	121	121	121	121	121	121	121	121	123	121	121	123
04/30/07		168480	162	162	165	162	162	162	162	165	0	0	0	0	0
Well Total		4,806,960													
System Total		10,224,000													
Average		111.43													

WELL LOG REPORT
April, 2007

Date	RIW2 1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
04/01/07	120	120	120	120	120	120	120	120	120	120	120	
04/02/07	120	120	120	120	120	120	120	120	120	120	120	
04/03/07	120	120	120	120	120	120	120	120	120	120	120	
04/04/07	120	120	120	120	120	120	118	118	120	118	118	
04/05/07	120	120	120	120	120	120	118	118	120	118	118	
04/06/07	118	118	118	118	118	118	118	118	118	118	118	
04/07/07	118	118	118	118	118	118	118	118	118	118	118	
04/08/07	118	118	118	118	118	118	118	118	118	118	118	
04/09/07	118	118	118	118	118	118	118	118	118	118	118	
04/10/07	118	118	118	118	118	118	118	118	118	118	118	
04/11/07	118	120	120	120	120	120	120	120	120	120	120	
04/12/07	120	118	120	118	118	120	120	120	118	118	120	
04/13/07	118	118	118	120	118	120	120	118	120	118	118	
04/14/07	118	120	120	120	120	120	120	120	120	120	120	
04/15/07	120	120	120	120	120	120	120	120	120	120	120	
04/16/07	0	0	0	0	121	123	123	123	123	123	123	
04/17/07	0	0	0	0	0	121	121	121	121	121	121	
04/18/07	122	123	122	123	123	123	123	123	121	121	121	
04/19/07	122	123	123	122	123	123	121	123	123	123	123	
04/20/07	122	123	123	123	123	123	123	123	123	123	123	
04/21/07	123	123	123	123	123	124	123	123	123	123	123	
04/22/07	123	123	124	123	125	125	125	125	123	123	123	
04/23/07	123	124	124	124	125	123	123	125	123	123	123	
04/24/07	0	0	0	0	0	0	0	0	0	0	0	
04/25/07		0	0	0	123	123	123	123	122	122	123	
04/26/07	121	121	121	121	121	121	121	121	121	121	121	
04/27/07	121	121	121	121	121	121	121	121	121	121	121	
04/28/07	121	121	123	121	121	121	121	121	121	121	121	
04/29/07	121	121	121	121	121	166	166	166	163	163	163	
04/30/07	0	0	174	165	165	165	165	168	168	168	168	
Well Total												
System Total												
Average												

WELL LOG REPORT
April, 2007

	RW6D													
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
04/01/07	78000	54	54	54	54	54	55	55	54	54	54	54	54	55
04/02/07	78360	54	54	55	55	55	54	54	54	54	54	54	54	54
04/03/07	77940	54	54	54	55	54	55	54	54	54	54	55	54	54
04/04/07	77280	54	53	53	54	54	54	54	54	54	53	53	54	54
04/05/07	76680	54	54	53	53	53	53	54	54	54	53	53	53	53
04/06/07	76440	53	53	54	54	53	53	53	53	53	53	53	53	53
04/07/07	76320	53	53	53	52	53	53	53	53	53	53	53	53	53
04/08/07	76080	53	53	53	53	53	53	53	53	53	53	53	52	53
04/09/07	57120	53	53	53	53	52	52	53	53	53	52	0	0	0
04/10/07	76680	53	53	53	53	53	53	53	53	53	53	53	53	53
04/11/07	76080	53	52	53	52	53	52	53	52	52	53	53	53	53
04/12/07	76440	53	53	53	53	53	53	53	53	53	52	53	53	53
04/13/07	75780	53	53	52	53	53	53	52	53	52	53	53	52	53
04/14/07	75540	52	52	52	52	52	52	53	53	52	52	52	52	53
04/15/07	75660	53	52	52	52	52	53	53	53	52	52	53	53	53
04/16/07	50760	53	52	52	52	52	52	52	53	53	0	0	0	0
04/17/07	44760	53	53	53	53	54	54	54	53	0	0	0	0	0
04/18/07	75900	53	53	52	53	52	52	53	53	53	53	53	52	52
04/19/07	76020	53	53	52	53	53	53	53	53	53	53	53	53	53
04/20/07	74640	52	51	51	51	52	52	52	51	52	51	51	52	52
04/21/07	75600	51	51	51	51	52	52	51	52	51	53	53	53	53
04/22/07	76080	53	52	53	53	53	53	53	53	53	53	52	53	52
04/23/07	75720	52	52	52	52	52	53	53	52	52	52	53	52	52
04/24/07	12600	53	53	52	52	0	0	0	0	0	0	0	0	0
04/25/07	22140	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/07	74940	52	52	52	52	52	52	52	52	52	52	53	52	52
04/27/07	75060	52	52	52	52	52	52	52	52	52	52	52	52	52
04/28/07	80100	55	55	56	55	56	56	55	55	56	56	55	56	56
04/29/07	79860	56	56	56	56	55	56	55	55	55	55	55	55	56
04/30/07	56760	55	54	54	55	55	55	55	55	0	0	0	0	0
Well Total	2,081,340													
System Total														
Average	48.18													

WELL LOG REPORT
April, 2007

	RW6D											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
04/01/07	54	54	54	54	54	54	54	54	55	54	54	
04/02/07	54	54	54	55	55	55	55	55	55	55	54	
04/03/07	53	54	54	55	54	54	54	54	54	54	54	
04/04/07	54	54	53	53	54	54	53	54	54	53	54	
04/05/07	53	53	54	53	53	53	53	53	53	53	53	
04/06/07	53	53	53	53	53	53	53	53	53	53	53	
04/07/07	53	53	53	53	52	53	53	53	53	55	53	
04/08/07	53	53	53	53	53	53	53	53	52	52	52	
04/09/07	0	0	0	53	53	53	53	54	53	53	53	
04/10/07	53	53	53	53	53	54	54	54	54	54	54	
04/11/07	53	53	53	53	53	53	53	54	53	53	53	
04/12/07	53	54	52	53	54	53	53	53	53	54	54	
04/13/07	53	52	53	53	52	53	53	52	53	52	52	
04/14/07	53	53	53	53	53	53	53	52	52	52	53	
04/15/07	53	53	52	52	52	53	53	52	52	53	53	
04/16/07	0	0	0	0	53	54	54	54	53	53	54	
04/17/07	0	0	0	0	0	53	53	54	53	53	53	
04/18/07	52	53	53	53	53	53	53	53	53	52	53	
04/19/07	52	53	53	52	52	53	52	53	53	53	53	
04/20/07	52	53	52	52	52	53	52	52	52	52	52	
04/21/07	53	54	54	53	53	54	53	53	53	53	53	
04/22/07	53	53	53	53	53	53	53	53	53	53	52	
04/23/07	53	53	53	53	53	53	53	53	53	53	53	
04/24/07	0	0	0	0	0	0	0	0	0	0	0	
04/25/07	0	0	0	0	53	53	53	53	53	52	52	
04/26/07	52	52	52	52	52	52	52	52	52	52	52	
04/27/07	52	52	52	52	52	53	53	53	52	52	52	
04/28/07	56	56	56	56	56	56	55	55	55	56	56	
04/29/07	56	56	56	56	56	56	55	55	55	55	54	
04/30/07	0	0	57	57	56	56	56	56	57	57	56	
Well Total												
System Total												
Average												

WELL LOG REPORT
April, 2007

Date	RW6S	12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
04/01/07	77760	54	54	54	54	54	54	54	54	54	54	54	54	54
04/02/07	78000	54	53	53	54	54	54	54	54	54	54	54	54	54
04/03/07	78000	54	55	54	54	54	55	55	54	54	54	54	54	54
04/04/07	77700	54	54	54	54	54	54	54	54	54	54	54	54	54
04/05/07	77280	54	54	54	54	54	53	54	54	53	53	54	53	54
04/06/07	77220	53	54	53	54	54	53	53	54	54	53	54	54	54
04/07/07	77160	54	54	53	54	54	54	54	53	54	53	53	54	53
04/08/07	77220	53	54	53	53	53	54	53	53	53	54	54	53	53
04/09/07	57960	54	54	54	54	53	53	54	53	53	53	0	0	0
04/10/07	77280	54	54	54	53	53	53	53	53	53	54	54	53	54
04/11/07	77520	54	54	54	53	53	54	53	54	53	54	54	54	54
04/12/07	78000	54	54	54	54	54	54	54	54	54	54	54	54	54
04/13/07	77580	54	54	54	54	53	54	53	54	54	54	54	54	54
04/14/07	77640	54	54	54	53	54	53	54	54	53	54	54	54	54
04/15/07	77880	54	54	54	54	54	54	54	54	54	54	54	54	54
04/16/07	51600	54	54	53	54	53	53	54	54	53	0	0	0	0
04/17/07	45360	54	54	54	54	54	54	54	53	0	0	0	0	0
04/18/07	77760	54	54	54	54	54	54	54	53	54	54	54	54	54
04/19/07	78120	54	54	54	55	54	54	54	54	54	54	54	54	55
04/20/07	78180	54	54	53	54	54	55	54	54	54	54	54	54	55
04/21/07	78420	54	54	54	54	54	54	54	54	54	54	55	54	55
04/22/07	78720	54	54	54	55	55	55	54	54	55	55	54	55	54
04/23/07	79200	55	54	55	55	55	55	54	54	55	54	55	55	55
04/24/07	12900	54	54	54	53	0	0	0	0	0	0	0	0	0
04/25/07	23280	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/07	78360	55	54	54	54	54	54	54	55	55	54	55	54	55
04/27/07	78180	54	54	54	54	54	54	54	55	54	55	54	54	54
04/28/07	78540	54	54	55	55	54	54	54	54	55	54	55	55	54
04/29/07	78480	54	54	54	55	54	54	54	54	54	54	54	54	55
04/30/07	55500	54	54	54	54	53	54	54	53	0	0	0	0	0
Well Total	**2,116,800**													
System Total														
Average	**49.00**													

WELL LOG REPORT
April, 2007

Date	RW6S 1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
04/01/07	54	54	54	54	54	54	54	54	54	54	54	
04/02/07	54	54	54	55	55	55	55	55	55	54	54	
04/03/07	53	54	54	54	54	55	55	54	54	54	54	
04/04/07	54	54	54	53	54	54	54	54	54	54	54	
04/05/07	53	53	53	54	54	54	54	54	54	53	54	
04/06/07	53	54	54	54	54	54	53	53	54	53	54	
04/07/07	54	53	54	53	53	53	54	54	54	53	54	
04/08/07	53	54	53	54	54	55	56	55	53	53	54	
04/09/07	0	0	0	54	54	54	54	54	54	53	54	
04/10/07	53	54	54	54	54	54	54	54	54	54	54	
04/11/07	54	55	54	54	54	54	54	54	54	53	54	
04/12/07	54	54	54	54	55	55	54	55	54	54	55	
04/13/07	54	54	54	54	54	54	54	53	54	54	54	
04/14/07	54	54	54	54	54	54	55	54	54	54	54	
04/15/07	54	54	54	54	54	54	55	54	54	54	55	
04/16/07	0	0	0	0	54	54	54	54	54	54	54	
04/17/07	0	0	0	0	0	55	54	54	54	54	54	
04/18/07	54	54	54	54	54	54	54	54	54	54	55	
04/19/07	54	54	54	55	54	55	55	55	54	54	54	
04/20/07	54	54	55	55	55	54	55	55	54	54	55	
04/21/07	54	55	55	55	55	56	55	55	54	54	55	
04/22/07	54	54	55	56	55	55	55	55	55	55	55	
04/23/07	55	56	55	55	56	56	56	55	55	55	55	
04/24/07	0	0	0	0	0	0	0	0	0	0	0	
04/25/07	0	0	0	0	56	56	56	55	55	55	55	
04/26/07	54	54	55	55	55	54	55	55	54	54	54	
04/27/07	55	54	54	55	55	55	54	54	54	55	54	
04/28/07	55	55	55	54	55	55	55	55	54	54	55	
04/29/07	55	55	55	55	55	55	55	55	54	55	55	
04/30/07	0	0	55	55	55	55	55	55	55	55	55	
Well Total												
System Total												
Average												

WELL LOG REPORT
April, 2007

	LAYNE													
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
04/01/07	45180	31	31	31	32	31	32	31	31	31	32	31	31	32
04/02/07	44880	31	31	31	31	32	32	31	31	32	31	31	31	31
04/03/07	44940	31	31	32	32	31	31	31	31	31	32	31	31	31
04/04/07	42540	31	32	32	32	31	32	31	30	31	30	31	0	31
04/05/07	44580	31	31	31	32	31	31	30	31	31	31	31	32	31
04/06/07	44340	30	31	31	31	31	31	30	31	31	30	31	30	30
04/07/07	44280	31	31	31	31	31	31	31	31	31	31	30	31	30
04/08/07	44580	31	32	31	31	31	31	30	31	30	31	31	30	31
04/09/07	32820	30	30	30	30	30	30	30	30	30	30	0	0	0
04/10/07	43440	30	30	30	30	30	30	30	30	30	30	30	30	31
04/11/07	44520	31	31	31	32	31	30	32	31	30	31	31	31	30
04/12/07	44700	31	31	31	31	31	31	32	31	31	31	31	31	31
04/13/07	42780	31	31	31	31	31	31	31	31	31	31	0	31	31
04/14/07	44460	31	31	31	31	31	31	31	30	31	31	31	31	31
04/15/07	41040	31	31	31	31	32	32	31	31	31	31	31	31	31
04/16/07	29700	31	31	31	31	31	31	31	31	30	0	0	0	0
04/17/07	22200	30	30	31	31	31	31	30	31	0	0	0	0	0
04/18/07	40620	31	30	30	30	31	31	31	31	31	30	31	30	31
04/19/07	44640	31	31	31	31	31	31	31	31	31	31	31	32	31
04/20/07	44760	32	32	31	31	31	31	31	31	31	31	31	31	31
04/21/07	44640	31	30	31	31	31	32	31	31	31	31	31	31	31
04/22/07	44580	31	31	31	31	31	31	31	30	31	31	31	31	31
04/23/07	44640	31	31	31	31	31	31	31	31	31	31	31	31	31
04/24/07	7380	30	31	31	31	0	0	0	0	0	0	0	0	0
04/25/07	7500	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/07	42780	31	31	31	31	31	31	31	31	31	31	31	31	31
04/27/07	44640	31	31	31	31	31	31	31	31	31	31	31	31	31
04/28/07	55920	38	38	38	39	39	38	38	39	39	38	38	39	39
04/29/07	56160	39	39	39	38	39	38	39	38	39	39	39	39	39
04/30/07	39660	38	37	38	39	39	38	38	38	0	0	0	0	0
Well Total	1,218,900													
System Total														
Average	28.22													

WELL LOG REPORT
April, 2007

	LAYNE											
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	
04/01/07	31	32	32	31	31	32	32	31	32	31	31	
04/02/07	31	31	31	32	31	31	31	31	31	31	31	
04/03/07	32	32	31	31	31	31	31	31	31	31	31	
04/04/07	30	30	31	30	31	31	31	30	30	30	31	
04/05/07	31	31	31	31	31	31	31	31	31	30	30	
04/06/07	30	31	31	32	31	31	31	31	31	31	31	
04/07/07	31	30	31	30	30	30	30	31	31	32	31	
04/08/07	31	32	31	31	31	31	31	31	31	31	31	
04/09/07	0	0	0	31	30	31	31	31	31	31	31	
04/10/07	30	31	31	30	30	30	30	31	30	30	30	
04/11/07	31	31	31	31	31	31	31	31	31	31	30	
04/12/07	31	31	31	31	31	31	31	31	31	31	31	
04/13/07	31	31	31	31	31	31	31	31	31	31	31	
04/14/07	31	31	31	31	31	31	31	30	30	31	31	
04/15/07	0	0	31	31	31	31	31	31	31	31	31	
04/16/07	0	0	0	0	31	31	31	31	31	31	31	
04/17/07	0	0	0	0	0	0	0	32	31	31	31	
04/18/07	31	30	32	31	31	31	31	0	0	31	31	
04/19/07	31	31	31	30	31	31	31	31	31	31	31	
04/20/07	31	31	31	31	31	31	31	31	31	31	31	
04/21/07	31	31	31	31	31	31	31	31	31	31	31	
04/22/07	31	31	31	31	31	31	31	31	31	31	31	
04/23/07	31	31	31	31	31	31	31	31	31	31	31	
04/24/07	0	0	0	0	0	0	0	0	0	0	0	
04/25/07	0	0	0	0	0	0	0	32	31	31	31	
04/26/07	31	0	31	31	31	31	31	31	31	31	31	
04/27/07	31	31	31	31	31	31	31	31	31	31	31	
04/28/07	39	39	39	38	39	40	40	39	39	40	40	
04/29/07	39	38	38	39	39	39	40	40	40	40	40	
04/30/07	0	0	41	40	39	38	40	40	40	39	39	
Well Total												
System Total												
Average												

WELL LOG REPORT
April, 2007

	W9													
Date		12:00mid	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00noon
04/01/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/02/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/03/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/06/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/07/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/08/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/09/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/10/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/11/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/12/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/13/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/14/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/15/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/16/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/19/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/20/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/21/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/22/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/23/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/25/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/27/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/28/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/29/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/30/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Total	0													
System Total														
Average	0.00													

WELL LOG REPORT
April, 2007

	W9										
Date	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm
04/01/07	0	0	0	0	0	0	0	0	0	0	0
04/02/07	0	0	0	0	0	0	0	0	0	0	0
04/03/07	0	0	0	0	0	0	0	0	0	0	0
04/04/07	0	0	0	0	0	0	0	0	0	0	0
04/05/07	0	0	0	0	0	0	0	0	0	0	0
04/06/07	0	0	0	0	0	0	0	0	0	0	0
04/07/07	0	0	0	0	0	0	0	0	0	0	0
04/08/07	0	0	0	0	0	0	0	0	0	0	0
04/09/07	0	0	0	0	0	0	0	0	0	0	0
04/10/07	0	0	0	0	0	0	0	0	0	0	0
04/11/07	0	0	0	0	0	0	0	0	0	0	0
04/12/07	0	0	0	0	0	0	0	0	0	0	0
04/13/07	0	0	0	0	0	0	0	0	0	0	0
04/14/07	0	0	0	0	0	0	0	0	0	0	0
04/15/07	0	0	0	0	0	0	0	0	0	0	0
04/16/07	0	0	0	0	0	0	0	0	0	0	0
04/17/07	0	0	0	0	0	0	0	0	0	0	0
04/18/07	0	0	0	0	0	0	0	0	0	0	0
04/19/07	0	0	0	0	0	0	0	0	0	0	0
04/20/07	0	0	0	0	0	0	0	0	0	0	0
04/21/07	0	0	0	0	0	0	0	0	0	0	0
04/22/07	0	0	0	0	0	0	0	0	0	0	0
04/23/07	0	0	0	0	0	0	0	0	0	0	0
04/24/07	0	0	0	0	0	0	0	0	0	0	0
04/25/07	0	0	0	0	0	0	0	0	0	0	0
04/26/07	0	0	0	0	0	0	0	0	0	0	0
04/27/07	0	0	0	0	0	0	0	0	0	0	0
04/28/07	0	0	0	0	0	0	0	0	0	0	0
04/29/07	0	0	0	0	0	0	0	0	0	0	0
04/30/07	0	0	0	0	0	0	0	0	0	0	0
Well Total											
System Total											
Average											

Extraction Well Downtime Summary

February 2007 – April 2007

TABLE A-1
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
RECOVERY WELL DOWNTIME SUMMARY
February 2007 - April 2007

Date (Down)	Recovery Well Downtime (Hours)					Comments
	RIW2	RW6D	RW6S	LAYNE	W9	
2/1/2007	24	0	0	0	0	
2/2/2007	24	9	9	9	9	Weekly Clean-up
2/3/2007	24	0	0	0	0	Repairs
2/4/2007	24	0	0	0	0	Repairs
2/5/2007	16	12	11	6	14	Repairs
2/6/2007	0	22	23	24	24	Computer Malfunction
2/7/2007	0	20	19.5	18.5	19	Computer Malfunction
2/8/2007	0	18	0	6	16.5	
2/9/2007	12	17	12	12	14	
2/10/2007	0	0	0	0	23	
2/11/2007	7	11	8	7	17	Recycling/Valve Problems
2/12/2007	7	13	8	7	22	Weekly Clean-up/Recirculating
2/13/2007	0	1	0	1	24	Acid Wash/Backwash
2/14/2007	0	0	0	0	24	
2/15/2007	15	15	15	15	24	Recirculating
2/16/2007	10	18	16	16	24	Recirculating
2/17/2007	0	0	22	1	24	
2/18/2007	5	14	21	12	24	Recirculating
2/19/2007	11	13	24	12	24	Recirculating
2/20/2007	3.5	5.5	21.5	7.5	24	
2/21/2007	3.5	4.5	24	6.5	24	Weekly Clean-up
2/22/2007	0	0	24	5	24	
2/23/2007	0	0	24	10	24	
2/24/2007	0	2	24	2	24	Recirculating
2/25/2007	0	20	23	6	24	
2/26/2007	6	24	24	6	24	Weekly Clean-up
2/27/2007	0	15	24	12	24	
2/28/2007	2	24	24	8	24	
Average: (Hrs/Day)	**6.93**	**9.93**	**14.32**	**7.48**	**19.38**	

TABLE A-1
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
RECOVERY WELL DOWNTIME SUMMARY
February 2007 - April 2007

Date (Down)	Recovery Well Downtime (Hours)					Comments
	RIW2	RW6D	RW6S	LAYNE	W9	
3/1/2007	16	24	24	21	24	
3/2/2007	0	24	24	5	24	
3/3/2007	0	24	24	4	24	
3/4/2007	2	24	24	9	24	Recirculating
3/5/2007	9	24	24	12	24	Weekly Clean-up
3/6/2007	0	24	24	13	24	
3/7/2007	5	24	24	6	24	Recirculating/Recycling
3/8/2007	12	14	14	14	16	Recirculating
3/9/2007	10	11	11	11	24	Maintenance/Recirculating
3/10/2007	6	6	6	6	24	Recirculating
3/11/2007	2	2	2	3	16	Recirculating
3/12/2007	7	7	7	7	24	Weekly Clean-up
3/13/2007	0	0	0	2	24	
3/14/2007	0	0	0	2	24	
3/15/2007	0	0	0	0	24	
3/16/2007	0	0	0	0	24	
3/17/2007	0	0	0	0	24	
3/18/2007	0	0	0	3	24	
3/19/2007	11	11	13	13	24	Clean-up/Changed Sludge Transfer Pump
3/20/2007	2	2	2	4	20	Recirculating
3/21/2007	0	0	0	2	24	
3/22/2007	0	0	0	3	24	
3/23/2007	0	0	0	0	24	
3/24/2007	0	0	0	2	24	
3/25/2007	0	0	0	2	24	
3/26/2007	5	5	6	6	24	Weekly Clean-up
3/27/2007	0	0	0	2	16	
3/28/2007	0	0	0	0	24	
3/29/2007	0	0	0	0	24	
3/30/2007	0	0	0	3	24	
3/31/2007	0	0	0	2	24	
Average: (Hrs/Day)	**2.81**	**7.29**	**7.39**	**5.06**	**23.10**	

TABLE A-1
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
RECOVERY WELL DOWNTIME SUMMARY
February 2007 - April 2007

Date (Down)	Recovery Well Downtime (Hours)					Comments
	RIW2	RW6D	RW6S	LAYNE	W9	
4/1/2007	0	0	0	0	24	
4/2/2007	6	6	6	6	24	Weekly Clean-up
4/3/2007	0	0	0	0	24	
4/4/2007	0	0	0	0	24	
4/5/2007	0	0	0	0	24	
4/6/2007	0	0	0	0	24	
4/7/2007	0	0	0	0	24	
4/8/2007	0	0	0	0	24	
4/9/2007	6	6	6	6	24	Weekly Clean-up
4/10/2007	0	0	0	0	24	
4/11/2007	0	0	0	0	24	
4/12/2007	0	0	0	0	24	
4/13/2007	0	0	0	1	24	
4/14/2007	0	0	0	0	24	
4/15/2007	0	0	0	2	24	
4/16/2007	8	8	8	8	24	Weekly Clean-up
4/17/2007	10	10	10	12	24	Maintenance
4/18/2007	0	0	0	2	24	
4/19/2007	0	0	0	0	24	
4/20/2007	0	0	0	0	24	
4/21/2007	0	0	0	0	24	
4/22/2007	0	0	0	0	24	
4/23/2007	0	0	0	0	24	
4/24/2007	20	20	20	20	24	Filter Media Repairs
4/25/2007	17	17	17	20	24	Filter Repairs
4/26/2007	0	0	0	0	24	
4/27/2007	0	0	0	0	24	
4/28/2007	0	0	0	0	24	
4/29/2007	0	0	0	0	24	
4/30/2007	7.5	7.85	7.5	7.5	24	Weekly Clean-up
Average: (Hrs/Day)	**2.48**	**2.50**	**2.48**	**2.82**	**24.00**	

Treatment Plant Filter Press Waste Data

February 2007 – April 2007

TABLE A-2
SHIELDALLOY METALLURGICAL CORPORATION
NEWFIELD, NJ
TREATMENT PLANT FILTER PRESS WASTE DATA
February 2007 - April 2007

Monitoring Period			Date Shipped	Quantity (Tons)
February 1, 2007	to	February 28, 2007	NA	0.00
March 1, 2007	to	March 31, 2007	NA	0.00
April 1, 2007	to	April 30, 2007	UNK	14.27
Total (Tons):				14.27
Monthly Ave. (Tons):				4.76

NOTES:

NA - Not Applicable (No discharge during this monitoring period).

UNK - Unknown

Waste disposal under New Jersey Pollution Discharge Elimination System (NJPDES) permit number NJ0004103.

Monitoring Location: S16A-SQAR-Filter Press.

All residuals transferred to and received by the Gloucester County Solid Waste Complex (facility #0816A).